

## LAURA H. GREENE

Chief Scientist, National High Magnetic Field Laboratory

*Florida State University • University of Florida • Los Alamos National Laboratory*

Francis Eppes Professor of Physics, *Florida State University*

Associate Director, Center for Emergent Superconductivity

Swanlund & Center for Advanced Study Professor, *University of Illinois at Urbana-Champaign (Emerita)*.

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### EXPERTISE:

My research is in experimental condensed matter physics investigating strongly correlated electron systems. Much of my research focuses on fundamental studies to determine the mechanisms of unconventional superconductivity by planar tunneling and point contact electron spectroscopies, and on developing methods for predictive design of new families of superconducting materials. In our quest for these long-term goals, we perform spectroscopic studies of the electronic structure of heavy fermions, topological insulators and superconductors, and other novel materials that show strong electronic correlations. We also incorporate studies of superconducting proximity effects on novel normal-state and superconducting materials.

### DEGREES:

Ph.D.	1984	Physics	Cornell University
M.S.	1980	Experimental Physics	Cornell University
M.S.	1978	Physics	The Ohio State University
B.S.	1974	Physics, <i>Cum laude</i>	The Ohio State University

### EMPLOYMENT BACKGROUND:

2015-present	Chief Scientist, National High Magnetic Field Laboratory Florida State University • University of Florida • Los Alamos National Laboratory
2015-present	Francis Eppes Professor of Physics, Florida State University
2015-present	Emerita Swanlund and Center for Advanced Study Professor of Physics, University of Illinois
2015-2018	Distinguished Visiting Professor, Institute for Basic Sciences Center for Correlated Electron Systems (IBS CCES), Seoul National University, Seoul, South Korea
2009-present	Associate Director of the Center for Emergent Superconductivity (CES) an Energy Frontier Research Center (Brookhaven, Argonne, & University of Illinois).
2009-2015	Principal Investigator for the Illinois Branch of the CES
2010 Lent term	Visiting Fellow Commoner, Trinity College, Cambridge University, UK.
2010 Spring	Visiting Professor, University of California at Irvine
2009-2015	Center for Advanced Study Professor of Physics, University of Illinois at Urbana-Champaign.
2004 Summer	Visiting Professor, CNRS, Orsay, France.
2000-2015	Swanlund Professor of Physics, University of Illinois at Urbana-Champaign.
1992-2015	Professor of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.

1985-1992	Member of Technical Staff, Bellcore, Red Bank, NJ.
1983-1984	Postdoctoral Member of Technical Staff, Bell Labs, then Bellcore, Murray Hill, NJ.
1979-1983	Research Assistant, Cornell University.
1978-1979	Teaching Assistant, Cornell University.
1976-1977	Research Assistant, The Ohio State University.
1975-1976	Teaching Assistant, The Ohio State University.
1974-1975	Member of Technical Staff, Physics Division, Hughes Aircraft Co., Torrance, CA.
1973-1974	Teaching Assistant, The Ohio State University (as an undergraduate).
1971-1973	Electronics Laboratory Assistant, The Ohio State University.

**HONORS and AWARDS:**

- Creativity Extension, NSF Award 2015-2017.
- John S. Guggenheim Foundation Fellowship, 2009-10.
- Center for Advanced Study Professor of Physics, University of Illinois, elected 2009.
- Fellow, Institute of Physics, "FInsP" UK, elected 2007.
- Center for Advanced Study Research Associate, University of Illinois Urbana-Champaign, 2006-07.
- Member, National Academy of Science, elected 2006.
- Fellow, Phi-Kappa-Phi honor society, elected 2001.
- Center for Advanced Study Resident Associate, University of Illinois Urbana-Champaign, 2000-01.
- Swanlund Endowed Chair, University of Illinois at Urbana-Champaign, named 2000.
- E. O. Lawrence Award for Materials Research, Department of Energy, 1999.
- Fellow, American Academy of Arts and Sciences, elected 1997.
- Center for Advanced Study, Beckman Associate, University of Illinois Urbana-Champaign, 1996-97.
- Fellow, The American Association for the Advancement of Science, elected 1996.
- Maria Goeppert-Mayer Award of the American Physical Society, 1994.
- Fellow, American Physical Society, elected 1993.
- Beckman Award from the University of Illinois Campus Research Board, 1993.
- Award of Excellence, Bellcore, Red Bank, NJ, 1989.
- Hazel S. Brown Scholarship Award, the Ohio State University, 1974

**LECTURESHIPS:**

- University of Maryland "Carr Lecturer", 2014
- Tufts University "Kathryn McCarthy Lecturer", 2007.
- Brookhaven National Laboratory Condensed Matter Sciences Distinguished Lecturer", 2007.
- Phi Beta Kappa Visiting Scholar, 2005-06: <http://www.pbk.org/advocacy/visitscholar/lgreene.htm>
- The Ohio State University Department of Physics, "1<sup>st</sup> Distinguished Alumnus Lecturer", 2005.
- Kalamazoo College, Department of Physics "Jennifer Mills Lecturer", 1997.
- Chosen as New Student Convocation Speaker for the ~6000 incoming freshman class at the University of Illinois, Urbana-Champaign, August 20, 2001.
- APS Centennial Speaker, chosen to give a series of Colloquia commemorating the first 100 years of the American Physical Society, selected 1997.

## EDITORIAL BOARDS

- Co-Editor (with J.A. Sauls) *Philosophical Transactions A* (Royal Society, UK): *Special Issue on Andreev Bound States* (2013 – Present).
- Co-editor (With Joe Thompson and Jörg Schmalian) *Reports on Progress in Physics: Special Issue on Strongly-Correlated Electron Systems*, 2015 – present; expect publication March 2016.
- **Editor-in-Chief, Reports on Progress in Physics**, Institute of Physics Publishing (IoP-RoPP), Bristol, UK 2005 – 2015; Editorial Board 2007 – 2015. **In that time, the Impact Factor rose from 3.2 to 17.062.**
- **Current Opinion in Solid State & Materials Science (COSSMS)**, Elsevier, 2011 – Present); Lead Editor for *Special Issue on Iron-Based Superconductors* (2013).
- Co-editor (With George Crabtree and Peter Johnson) *Reports on Progress in Physics: Special Issue on Fe-based superconductors and Related Materials* (Vol. 74, Nov. 2011).
- Editorial Board, *Superconductivity Review*, Gordon and Breach Science Publishers (1992-1995).

## PROFESSIONAL REGISTRATIONS

- Institute of Physics, UK, member since 2005, elected Fellow (FInsP) 2007.
- National Academy of Science, elected 2006.
- Phi-Kappa-Phi Honor Society, elected 2001.
- American Academy of Arts and Sciences, elected Fellow 1996.
- American Association for the Advancement of Science, member since 1992, elected Fellow 1996.
- American Physical Society, member since 1978, elected Fellow 1993.
- American Chemical Society, member since 1996.
- American Association of Physics Teachers, member since 1992.
- Materials Research Society, member since 1984.

## SOME SCIENTIFIC PRESS RELEASES:

- <http://www.intute.ac.uk/hottopics/?s=Laura+Greene>
- [http://www.eurekalert.org/pub\\_releases/2005-03/uoia-psd031705.php](http://www.eurekalert.org/pub_releases/2005-03/uoia-psd031705.php)
- <http://www.azom.com/news.asp?newsID=2780>

## Web PR Outreach

- ICAM Interview GSEE: A Global Partnership for Science Education, Outreach and Engagement: <https://www.youtube.com/watch?v=aqog5xGMxCg>
- APS-TV interview for the Kavli Lecture, March 6, 2014, Denver, CO <https://www.youtube.com/watch?v=WWmtzgv102Y>
- Physics World Interview, April 14, 2011, “Life after the Cuprates” <http://physicsworld.com/cws/article/multimedia/45686>
- National Academy of Sciences Interview, 2009: <http://www.nasonline.org/news-and-multimedia/podcasts/interviews/laura-greene.html>
- The “Year of Science 2009” interview: [http://www.yearofscience2009.org/themes\\_physics\\_technology/meet-scientists/](http://www.yearofscience2009.org/themes_physics_technology/meet-scientists/)

- APS Physics Central Interview 2008: <http://www.youtube.com/watch?v=ptswilP4yi0>
- Women in Technology International (WITI) profiled in 2001: <http://www.witi.com/center/witimuseum/womeninsciencet/2001/060901.shtml>

#### Some other recent Outreach and Public Engagement (besides committees listed)

- Member of the COACH team, supported by the Department of State, assisting in the success and impact of women and young men scientists and engineers: <http://coach.uoregon.edu/coach/>.
  - March 5-10, 2013, Casablanca, Morocco;
  - June 28-30, 2013, Bali, Indonesia;
  - January 06-08, 2014, Bangkok, Thailand;
  - June 19-20, 2014, Medan, Sumatra, Indonesia;
  - September 2-5 2014 Delhi, India;
  - September 7-10 2014, Bangalore, India (<https://indiabioscience.org/columns/indian-scenario/notes-from-the-career-building-workshop-for-women-scientists-at-nias>)
  - May 20, 2015, Argonne National Laboratory;
  - June 23, 2015, Oak Ridge National Laboratory;
  - July 27-28, 2015, Makassar, South Sulawesi, Indonesia
  - August 29-31, 2015, Pune, India
  - September 2-4, 2015, Guwahati, India
  - October 4-5, 2015, Muscat, Oman
  - October 7-8, 2015 Nizwa, Oman
  - October 11-12, 2015, Sohar, Oman
  - December 8-9, Accra, Ghana
- Organizer and chair for the special symposium of the 2015 March Meeting of the American Physical Society “*Materials Genome Initiative for Strongly Correlated Electron Systems: Design of New High Temperature Superconductors*” March 14-18, 2016, Baltimore, MD.
- Organizer and chair for the 2013 APS March Meeting “*Physics for Everyone*” DMP symposium, <http://meetings.aps.org/Meeting/MAR13/SessionIndex2/?SessionEventID=191632>, March 20, 2013, Baltimore, MD.
- Co-organizer for the 2013 APS March and April Meetings “*Communicating Physics: Advice from the Experts*” FOEP Symposia, March 19, 2013, Baltimore, MD and April 15, 2013, Denver, CO. (<http://meetings.aps.org/Meeting/MAR13/SessionIndex2/?SessionEventID=184461>) (<http://meetings.aps.org/Meeting/APR13/SessionIndex2/?SessionEventID=194955>)
- Popular Article: “*High-Temperature Superconductivity: Taming Serendipity*” *Physics World*, **24**, 41-43 (2011).
- Popular Article: “*Confronting Fraud in Science*”, Book Review of *On Fact and Fraud: Cautionary Tales from the Front Lines of Science* by David Goodstein, *Physics World*, **23**, 42-43 (2010).
- Participant in the APS March Meeting “*Physics Songs*” symposia; most March Meetings.

#### CITATION NOTES:

- Number of Citations: > 9,000; h-index: 48
- In *The Thompson ISI's 1120 Most Cited Physicist, 1981 – 1997* <http://www.lorentz.leidenuniv.nl/history/citations/physicists.html>, where physicists are ranked in this time period by the total number of citations. Rank = # 182; Rank by citations per paper (impact) = # 18.

## APPOINTMENTS / ELECTED POSITIONS / COMMITTEES

### NATIONAL AND INTERNATIONAL SERVICE

#### Current

- Search Committee for the new Editor in Chief of Science Magazine, 2015.
- *Intelligence Science and Technology Experts Group* (ISTEG), of the National Academies of Sciences, Engineering and Medicine, 2015 – pres.
- Chair-Elect of the US Liaison Committee (USLC) of the International Union of Pure and Applied Physics (IUPAP) 2015-2017; then Chair 2018-2021.
- Vice Chair of the International Union of Pure and Applied Physicists (UPAP) Commission on Structure and Dynamics of Condensed Matter (C10), elected 2014-2017; US delegate to that commission since 2011.
- American Physical Society, Congressional Fellow Screening Committee, Chair, 2015-2016.
- Panel on Public Affairs, American Physical Society, 2015-17.
- Kavli Prize Committee in Nanoscience (5 members) for the Norwegian Academy of Science and Letters; for two periods (2015-2018), deciding Kavli Prize Laureates in 2016 and 2018.
- President-Elect of the American Physical Society, 2016, POTAPS in 2017, and Past-POTAPS in 2018.
- Chair, General Fellowship Committee of the American Physical Society (2015-2016).
- Chair line for the Division of Materials Physics (DMP) of the American Physical Society, elected 2011. 2011 Vice-Chair; 2012 Chair-Elect; 2015 Chair; and 2016 Past Chair.
- American Associate for the Advancement of Science (AAAS) 2016 Annual Meeting Site Selection Committee.
- Class Membership Committee (CMC), for Class III, Member-at-Large, National Academy of Sciences, elected 2014-pres.
- Board of Directors, American Association for the Advancement of Science (AAAS), elected 2014 - 2020.
- ESPCI (École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris) Paris Tech International Scientific Committee (<http://www.espci.fr/en/espci-paristech-80/organization/international-scientific-committee>).
- Chair, Experimental Screening Committee for Section 33 “Applied Physical Sciences” of the National Academy of Sciences (NAS), 2014 – 2020.
- Chair, Board of Governors, International Institute for Complex and Adaptive Matter (ICAM-I2CAM), elected 2013 – present
- American Academy of Arts and Sciences Class I, Section 2 (Physics) Nominating Panel, 2012-present.
- Founding Member of the Global Partnership for Promoting Science Education through Engagement (GSEE), sponsored by the Institute for Complex and Adaptive Matter (ICAM), 2012 – present.
- Co-Chair (with R. L. Greene) of the ICAM International Working Group on New Superconductors, 2010 – present.
- Fellowship Selection Committee, Institute of Physics (IoP – UK), 2007 – present.

- Science Steering Committee, Institute for Complex and Adaptive Materials (ICAM), University of California, 2008 – present.
- Founding Member Board of Trustee, and on the Board of Governors, Institute for Complex and Adaptive Materials (ICAM), University of California, 1998 – present.

### Previous

- Selection committee for the American Associate for the Advancement of Science (AAAS) Early Career Award for Public Engagement with Science (<http://www.aaas.org/page/aaas-early-career-award-public-engagement-science>), 2015 – pres.
- Chair, 2015 Buckley Prize Committee, Division of Condensed Matter Physics (DCMP) of the American Physical Society.
- Inaugural (2015) Richard L. Greene Dissertation Award Selection Committee, presented by the divisions of Materials Physics and the Division of Condensed Matter Physics, American Physical Society; Chair of the 2016 Committee.
- Program Committee, 11<sup>th</sup> International Conference on Materials and Mechanisms of Superconductivity (M2S 2015) August 23 – 28, 2015, Geneva, Switzerland.
- Pre-Search Committee for Editor in Chief for The Physical Review, American Physical Society, 2015.
- Publisher Appointment Team, American Physical Society, 2015.
- Selection Committee for the 2015 E.O. Lawrence Award in Materials Science for the US Department of Energy.
- Search Committee for the Chief Executive Officer of the American Association for the Advancement of Science, 2014.
- Department of Energy, Basic Energy Sciences Advisory Committee (BESAC) working group to update the 2007 BESAC Report “Directing Matter and Energy: Five Challenges for Science and the Imagination” (<http://www.besac-grand-challenge2014.com>).
- UPAP General Assembly; US Delegate, November 4 – 7, 2014, Nanyang Technical University, Singapore.
- Division of Materials Physics (DMP) Program Chair for the 2014 March Meeting; so co-chair for this meeting (~ 10,000 participants).
- Vice Chair of 2014 Buckley Prize Committee of the American Physical Society.
- Participant of the 2014 Physics Convocation of the American Physical Society, including Congressional Visits, February 20 – 22, 2014, Washington, DC and the American Center for Physics, College Park.
- The Board on Physics and Astronomy of the National Academy of Sciences (BPA-NAS), 2003-2006 and 2008 – 2014.
- Program Committee: International Conference Celebrating the 40<sup>th</sup> Anniversary of the Discovery of Point Contact Spectroscopy, 8-12, September 2014, Kharkiv, Russia.
- Selection Committee of the Edith and Peter O’Donnell Award for the Texas Academy of Engineering, Medicine, and Science (TAMES)
- Search Committee for the Lead Editor of Physical Review Letters, American Physical Society, 2013.

- Chair line for the Division of Materials Physics (DMP) of the American Physical Society, elected 2011. Terms are through the March Meeting: Vice-Chair 2011; Chair-Elect 2012; Chair 2015; Past Chair 2016.
- Member at Large for the Forum on Outreach and Engaging the Public (FOEP) of the American Physical Society, elected 2012 – 2013.
- Co-founder of the Forum on Outreach and Engaging the Public (FOEP), American Physical Society, 2012.
- Participant of the 2013 Physics Convocation of the American Physical Society, including Congressional Visits, February 20 – 23, 2013, American Center for Physics, College Park, MD, and Washington DC.
- Basic Energy Sciences Advisory Committee (BESAC), appointed by the U. S. Secretary of Energy, 2000 – 2013.
- Department of Energy, Basic Energy Sciences Workshops and Study: **From Quanta to the Continuum: Physics at the Mesoscale** (<http://www.meso2012.com/>).
- Member of the American Institute of Physics 2012 Karl T. Compton Medal Selection Committee.
- Alexander M. Cruickshank Lectureship Committee, Gordon Research Conferences, 2006 – 2011, Chair 2008-2011.
- Portfolio Review Committee, Gordon Research Conferences, 2008-2011.
- Strategic Planning Committee, Gordon Research Conferences, 2006-2011.
- Board of Trustees, Gordon Research Conferences, elected 2005-2011.
- Program Committee of the International Conference on Strongly Correlated Electron Systems (SCES-2011), 28 August – 3 September 2011, Cambridge, UK.
- Committee on Informing the Public, American Physical Society, 2006 – 2011.
- Argonne Education and Outreach Council for the Division of Educational Programs, Argonne National Laboratory (Argonne-U/Chicago-LLC), appointed 2007 – 2011.
- Program Committee of the 26<sup>th</sup> International Conference on Low-Temperature Physics (LT26), 10-17 August 2011, Beijing, China.
- Condensed Matter Physics Grant Selection Committee (GSC 28) of the Natural Sciences and Engineering Research Council of Canada (NSERC), 2008 - 2011.
- Executive Board, Division of Materials Physics, American Physical Society, 2007-2010.
- Fellowship Committee, Division of Materials Physics, American Physical Society, 2008-2009; Chair 2012.
- Elector for The Jacksonian Professorship of Natural Philosophy, The Professorship of Physics, and the Chair for Astrophysics of the Department of Physics, Cambridge University, Cambridge, UK, September 2006, July 2007, January 2009.
- Department of Energy, Basic Energy Sciences Study and Report: **“Science for Energy Technology: Strengthening the Link Between Basic Research and Industry”**, panelist and co-author. <http://science.energy.gov/bes/news-and-resources/reports/basic-research-needs/>
- Program Committee for the 25<sup>th</sup> International Conference on Low Temperature Physics (LT-25), Amsterdam, Netherlands, August 6 – 13, 2008.
- Liaison to the National Research Council, National Academy of Sciences Section 33 (Applied Physical Sciences), 2006-2008.

- National Research Council Study: ***“Frontiers in Crystalline Matter: From Discovery to Technology”***, National Academy of Sciences, appointed 2007, Co-author and Committee Member.
- Program Committee of “BCS@50” commemorating the 50<sup>th</sup> anniversary of the discovery of the BCS theory of Superconductivity, October 10-13, 2007, Urbana, IL.
- SuperNet Committee (education and outreach), Institute for Complex and Adaptive Materials (ICAM), Los Alamos and University of California, 2006 – 2009.
- National Academies of Science Committee called by NSF to propose assessment and outlook for NSF’s Materials Research Science and Engineering Centers (MRSEC) Program, 2004.
- Department of Energy Office of Basic Energy Sciences Workshop, Study, and Report, ***“Basic Research Needs for Superconductivity to Secure our Energy Future”***, Chair, sub-panel on *Thermodynamics and Magnetism*, Workshop May 7-11, 2006, Washington, D.C.  
<http://science.energy.gov/bes/news-and-resources/reports/basic-research-needs/>
- Plenary speaker and participant in the *International Physics Young Ambassador Symposium* Dec. 31, 2005 – Jan. 4, 2006, Taipei, Taiwan. This is in celebration of Einstein's miracle year. A “Physics Talent Search” (<http://www.wyp2005.at/glob2-talent.htm>) ranged over many countries for several months to identify physics-talented girls and boys (Junior High and High School) and culminated at this meeting.
- Scientist in the American Association for the Advancement of Science (AAAS) “Adopt a scientist” program. Provides e-mail communication between physics students and professionals during the World Year of Physics, 2006.
- US Delegate to the 2<sup>nd</sup> International Conference on Women in Physics, International Union of Pure and Applied Physicists (IUPAP), Rio de Janeiro, Brazil, May 22-25, 2005.
- US delegate to the Low-Temperature Physics Commission (C5), International Union of Pure and Applied Physicists (IUPAP), elected 1996 and 1999: Each three-year terms.
- U. S. Liaison Committee, International Union of Pure and Applied Physicists (IUPAP), elected 1996 and 1998: Each three-year terms.
- Fellowship Selection Committee for Physics, Sloan Foundation, elected 2001-07.
- Schedule and Selection Committee, Gordon Research Conferences elected 1999-2004; 2006-09.
- Council Member-at-large, Gordon Research Conferences, elected 1999-2004; 2006-09.
- Argonne National Laboratory Distinguished Awards Selection Committee, 2005.
- E. O. Lawrence Award in Materials Science Screening Panel for the Department of Energy, 2001.
- William L. McMillan Award Committee (Chair), Department of Physics Department, University of Illinois at Urbana-Champaign, Urbana, IL, 1995-97.
- American Association for the Advancement of Science (AAAS), Electorate Nominating Committee of Section B (Physics), 2000-02, Chair 2002.
- Nominating Committee, Division of Condensed Matter Physics, American Physical Society, 2005.
- Bouchet Award Selection Committee, American Physical Society 2003-05.
- Executive Board, American Physical Society, elected 1995, 2-year term.
- Nominating Committee, Division of Condensed Matter Physics, American Physical Society, 1998.
- Committee on Committees, American Physical Society, elected 1995-98, Chair 1998.
- Maria Goeppert-Mayer Award Selection Committee, American Physical Society, 1995.
- Congressional Fellow Screening Committee, American Physical Society, 1993-94.



- General Councilor, American Physical Society, elected to a four-year term, 1992-95.
- Search Committee for Editor-in-Chief of The Physical Review, appointed 1996.
- Physics Today Round Table on the future of our Research Universities. This was published in the March 1995 issue of Physics Today.
- Program Committee of the 8<sup>th</sup> International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors (M2S-HTSC-VIII), July 9-14, 2005, Dresden, Germany (<http://www.m2s-dresden.de>).
- National Science Foundation MAPP Workshop Committee. Neal Lane and other NSF officials assembled this committee in 1995 to answer questions put forth by Senate.

### REVIEW PANELS

- Review Panel, “Design Principles for Materials with Magnetic Functionality” LDRD for Los Alamos National Laboratory, January 27, 2014, Los Alamos, NM.
- Review Panel, National Science Foundation proposals, January 18, 2013, NSF, Arlington, VA.
- Reviewer of the National Research Council (NRC) Report on the National High Field Magnet Laboratory (NHFML), 2013.
- Member of the National Academy of Sciences and National Academy of Engineers Review Panel of the National Center for Neutron Sciences (NCNS) at the National Institute of Standards and Technology (NIST), 2013.
- Review Panel, Advanced Photon Source (APS) beamlines on high-energy inelastic x-ray scattering (HERIX) and nuclear resonance scattering (NRS), Sectors E-ID and 30-ID, and the instrumentation for synchrotron Mössbauer spectroscopy (SMS) at Argonne National Laboratory; October 3, 2012.
- Review Panel, Chair: Department of Physics and Astronomy, Iowa State University, April 28 – May 1, 2011, Ames, IA
- Review Panel, Chair: Department of Physics and Astronomy, University of British Columbia, September 25-26, 2008, Vancouver, British Columbia, Canada.
- Review Panel: Department of Physics and Astronomy, University of Cincinnati, November 29-30, 2007, Cincinnati, OH.
- Review Panel: National Science Foundation -- Small Business Initiative Research (NSF-SBIR) proposals, September 7, 2006, NSF, Arlington, VA.
- Review Panel: The National High Magnetic Field Laboratories (NHFML) Blue Ribbon Advisory Review Panel, for the National Science Foundation to assess the future of our National Magnet Labs, 2005. Included a site visit to the National High Field Magnet Laboratory Brain Institute and Nano-Kelvin Facilities, April 22, 2006, Gainesville, FL.
- Review Panel and committee member of the University of Chicago Division of Educational Programs peer-review committee at Argonne National Laboratory, September 27-28, 2006, Argonne, IL.
- Center for Integrated Nanotechnologies (CINT), Los Alamos and Sandia National Laboratories: Chair of External Review Panel, 2003-2005.

- Review Panel, external reviewer for the Los Alamos National Laboratory Directed Research Development Project (LDRD) “Nanoscale Fluctuations”, January 31, 2005, Los Alamos, NM.
- Review Panel, external reviewer for the Los Alamos National Laboratory Directed Research Development (LDRD) project “New States of Matter near T=0 Transitions”, April 1-2, 2004, Los Alamos, NM.
- Review Panel: Department of Physics and Astronomy, Iowa State University, April 28-30, 2003, Ames, IA.
- Review Panel: National Science Foundation – Division of Materials Research (NSF-DMR) proposals, NSF, October 22, 2002, Arlington, VA.
- Review Panel: Canadian Institute For Advanced Research, Superconductivity Review, May 1 – 4, 2002, Toronto, Canada.
- Review panel: Ames Research Laboratory, November 16-17, 1998, Ames, IA.
- Review panel: National Science Foundation -- Small Business Initiative Research (NSF-SBIR) proposals, September 23, 1993, NSF, Arlington, VA.
- Review panel: Department of Energy, Initiative on Superconducting Materials, June 2-4, 1993, Washington, DC.
- Behind the scenes consultant to Nature, Science, APS and several other organizations for Ethics in Science, which mainly focuses on how to identify and manage scientific misconduct issues.

#### **ADVISORY COMMITTEES/BOARDS**

##### **Current**

- International Advisory Board for the 2016 International Conference on Superconductivity and Magnetism-ICSM2016, April 2016, Fethiye, Turkey.
- International Advisory Board for the 2016 International Conference on Strongly Correlated Electron Systems, May 9 – 13, 2016, Hangzhou, China.
- Vice-Chair, Development Advisory Committee, American Physical Society, 2015; Chair in 2016
- Rice Center for Quantum Materials (RCQM) Advisory Board, 2014-pres.
- Advisory Committee (and workshop convener) for the US Department of State US-Brazil Young Physicists Forum (YPF). The next meeting is March 12-13, 2015, Baltimore, MD.
- University of Montana Materials PhD Advisory Board, 2014 – 2016.
- COACH International Advisory Board, 2012 - present. (<http://coach.uoregon.edu/coach/>).
- External Advisory Board: Texas Center for Superconductivity (TcSUH), 2012 – present.

##### **Previous**

- External Advisory Panel, Argonne Materials Advisory Board, 2010 – present.
- External Advisory Committee for the Northwestern University Materials Research Science & Engineering Center (NU-MRSEC), 2010 – 2015.
- External Advisory Board, National Dong Hwa University, Shoufeng, Hualien, Taiwan, 2013 – 2015.
- Advisory Committee for the US Department of State US-China Young Physicists Forum (YPF). The next meeting is February 28 – March1, 2015, San Antonio, TX.

- International Advisory Committee and organizer of special sessions for SuperStripes 2014, July 2014, Erice, IT.
- Advisory Committee for the Superconductivity Section for the International Conference on Low Temperature Physics, LT27, August 6 – 13, 2014, Buenos Aires, Argentina.
- International Advisory Committee of The 4<sup>th</sup> International Conference on Superconductivity and Magnetism-ICSM2014, 27 April – 2 May, 2014, Antalya, Turkey. <http://icsm2014.org/general-information/conferenceintroduction/>.
- International Advisory Board, 2013 International Conference on Strongly Correlated Electron Systems, July 7 – 11, 2014, Grenoble, FR.
- BOOST/Grantwriting/Indonesia Advisory Board; part of COACH International, for the Kavli Frontiers of Science Indonesia Meeting, Bali, Indonesia.
- International Advisory Committee of the 14<sup>th</sup> International Workshop on Vortex Matter in Superconductors. May 26 to May 31, 2013, Nanjing, China.
- Internationals Advisory Committee, International Conference on Magnetism – 2012 (ICM2012), July 8 – 13, 2012, Busan, Korea.
- Center for Integrated Nanotechnologies (CINT), Los Alamos and Sandia National Laboratories: Member of the Science Advisory Committee (SAC) 2002 – 2010.
- National Advisory Committee of the 2010 International Conference on Strongly Correlated Electron Systems (SCES2010), Santa Fe, NM, June 27 through July 2, 2010.
- National Advisory Committee for the 2007 International Conference on Strongly Correlated Electron Systems (SCES07), May 13 – 18, 2007, Houston, TX
- Advisory Board, Kavli-Institute for Theoretical Physics (KITP), University of California at Santa Barbara, Santa Barbara, CA, 2002-2005.
- Science Advisory and Program Committees for the 24<sup>th</sup> International Conference on Low Temperature Physics (LT24), August 2005, Orlando, FL.
- International Advisory Committee for the 23<sup>rd</sup> International Conference on Low Temperature Physics (LT-23), August 20 – 27, 2002, Hiroshima, Japan.
- Science Advisory and Program Committees for the International Conference on the Materials and Mechanisms of Superconductivity (M2S-RIO), May 25-31, 2003, Rio de Janeiro, Brazil.

#### **UNIVERSITY SERVICE:**

##### **Current**

- Florida State University/NHMFL Search Committee for faculty hire in Condensed Matter Theory.
- FSU Committee to develop a new course “Science and Art.”

##### **Previous**

- University of Illinois Awards and Honors Committee (appointed by Provost).
- University of Illinois Center for Advanced Study Evaluation and Strategic Planning Committee Report, co-chair with David Ceperley (Appointed by Vice Chancellor for Research) 2013 – 2014.
- University of Illinois Center for Advanced Study Policy Committee, 2001 – 2014.
- University of Illinois Subcommittee to review a new graduate course in the College of Engineering: “Scientific Writing,” 2012.

- University of Illinois Advisor to the Chancellor and Provost Diversity and Cultural Understanding Faculty Council (DRIVE) as part of the University Enhancing Diversity, Guiding Excellence (EDGE) initiative to enhance and retain underrepresented groups in our faculty, appointed 2013.
- University of Illinois Committee to work with the Washington Advisory Group (WAG) on Energy, 2009 - 11.
- University of Illinois Master of Ceremonies for the Closing/Award Ceremonies for the 2010 National Science Olympiad held at the University of Illinois at Urbana-Champaign. This involved audiences (middle school and high school) of nearly 5000 in attendance. May 22, 2010.
- University of Illinois Smart Grid / Smart Infrastructure / Transmission Lines Committee, 2009 – 11.
- University of Illinois University Senate Honorary Degrees Committee, appointed 2004-2007.
- Master of Ceremonies for the Closing/Award Ceremonies for the 2005 National Science Olympiad held at the University of Illinois at Urbana-Champaign. This involved audiences (middle school and high school) of nearly 5000 in attendance, May 21, 2005.
- University of Illinois Faculty Banner Carrier, University Commencement (this is the same class I delivered the New Student Convocation lecture to, four years earlier), May 15, 2005.
- Oversight Committee for the Vice Chancellor of Research, University of Illinois at Urbana-Champaign, 2001-02.
- University of Illinois New Student Convocation Speaker, for over 6000 incoming Freshmen, August, 2001.
- Provost's Committee on Sexual Harassment Education, University of Illinois, 1999-01.
- University of Illinois Center for Advanced Study Bardeen Scholar Committee (to select and advise Bardeen student scholars), 2000-01.
- Center for Advanced Study Advisory Committee: Vignettes Book on Creativity and Excellence at the University of Illinois at Urbana-Champaign, 2001-02. The book has been published: *No Boundaries*, Lillian Hoddeson ed. (University of Illinois Press, 2004).
- Steering Committee: "The Silicon, Carbon and Culture Initiative", a University of Illinois campus-wide committee to seek out and support multidisciplinary initiatives, 2001-02.
- College of Liberal Arts and Sciences Mentor and member of the LAS "Teaching Academy" for mentoring young faculty members in LAS, University of Illinois at Urbana-Champaign, 2001-02.

## COLLEGE AND DEPARTMENT SERVICE

### Current

### Previous

- University of Illinois Physics Dept. Faculty Recognition Committee, as the Condensed Matter Experiment liaison member, 2014-15.
- Qualifying exam Committee, Department of Physics, University of Illinois at Urbana-Champaign, about once every two years.
- University of Illinois Colloquium Committee Chair, Fall 2011; co-chair, Spring 2012

- University of Illinois Awards and Recognition Committee, College of Engineering, 2007-2011.
- University of Illinois Physics Senior Thesis Task Force, 2013-14.
- University of Illinois Faculty Recognition Committee, Physics Department, 2000-05.
- University of Illinois Physics Department Task Force on Diversity, 2007-08.
- University of Illinois Physics Department Course Development for a new Outreach Course (for non-scientists), 2009.
- Committee for the Conference celebrating the 50<sup>th</sup> Anniversary of the discovery of the Bardeen-Cooper-Schrieffer Theory of Superconductivity (BCS@50), University of Illinois at Urbana, Champaign, October, 2007.
- Dean's Advisory Committee on Appointments, College of Engineering, University of Illinois at Urbana-Champaign, 2002-2006.
- University of Illinois College of Engineering Advisory Committee for Awards and Endowed Chairs, 2002-2006.
- Theoretical biophysics faculty search committee, department of physics, University of Illinois at Urbana-Champaign, 2003-2004.
- Condensed Matter Physics Seminar Chair, University of Illinois at Urbana-Champaign, 2004.
- Colloquium Committee Chair, Department of Physics, University of Illinois at Urbana-Champaign, 1993-1994.
- Physics Advisory Committee, University of Illinois, elected 1999 for a 2-year term.
- Search Committee for a new Director of the Science and Technology Center for Superconductivity, appointed in 1996 by the University of Illinois Dean of Engineering.
- Search Committee for Head of the Department of Electrical and Computer Engineering at the University of Illinois, appointed in 1994 by the Dean of Engineering.

## CHAired CONFERENCES

### Current

### Previous

- Co-Chair for the Topic "Strongly Correlated Electron Systems (including superconductivity and multiferroics)" at the 2015 International Conference on Magnetism (ICM2015), July 5 – 10, 2015, Barcelona, Spain. <http://www.icm2015.org/>.
- Co-Chair of the 2014 Center for Emergent Superconductivity (CES-EFRC) Fall Workshop, November 9 – 12, 2014, Urbana, IL.
- Chair of SCES@60 / DP@90 Summit Symposia: SCES@60 = Strongly Correlated Electron Systems at 60 years old; DP@90 = David Pines at 90 years old, October 17-18, 2014, Urbana, IL.
- Program Chair for the Division of Materials Physics (DMP), March Meeting of the American Physical Society, March 2 – 7, 2014, Denver, CO; and co-chair of that 10,000 person meeting.
- Coordinator of the DMP Prize Winner Symposium, March Meeting of the American Physical Society, March 2-7, 2014, Denver, CO

- Coordinator of the DMP-sponsored focus topic sessions on Fe-based superconductors at the March Meeting of the American Physical Society, March 2-7, 2014, Denver, CO.
- Co-Organizer of *"Superconductivity at 300mK and Beyond"* a celebration of the 75<sup>th</sup> birthday of Rick Greene, November 23 – 24, 2013, University of Maryland, College Park, MD
- Co-coordinator of the FOEP-sponsored session, "How to Engage the Public: Advice from the Pros" at the 2013 April Meeting of the American Physical Society, <http://meetings.aps.org/Meeting/APR13/sessionindex2/?SessionEventID=194955>.
- Coordinator of the DMP sponsored session, "Physics For Everyone" at the 2013 March Meeting of the American Physical Society, Baltimore, MD.
- Co-coordinator of the FOEP-sponsored session, "How to Engage the Public: Advice from the Pros" at the 2013 March Meeting of the American Physical Society, Baltimore, MD. <http://meetings.aps.org/Meeting/MAR13/SessionIndex2/?SessionEventID=184461>
- Coordinator of three DMP-sponsored focus topic sessions on Fe-based superconductors at the 2013 March Meeting of the American Physical Society, Baltimore, MD
- Co-Chair (with: George Crabtree, ANL; and Peter Johnson, BNL) of the 10<sup>th</sup> International Conference on Materials and Mechanisms of Superconductivity (M2S 2012), 29 July – 3 August 2012, Washington, DC. <http://www.m2s-2012.org/>
- Co-Chair (with David Pines, U C Davis; Julien Bobroff, Orsay; Dudley Herschbach, Harvard; and Elizabeth Simmons, Michigan State), "Becoming Engaged: Initiatives That Can Change Science Education." - An ICAM/ Aspen Center for Physics 50th Anniversary Workshop, 22-25 July 2012, Aspen, CO.
- Chair of the 2011 Center for Emergent Superconductivity (CES-EFRC) Fall Workshop, November 6 – 9, 2011, Urbana, IL. <http://www.bnl.gov/cesworkshop/>
- Co-Chair (with Yvan Bruynseraede) of the Division of Materials Physics Focus Topic Session, "Search for New Superconductors" at the March Meeting of the American Physical Society, March 21-26, 2011, Dallas, TX.
- Co-Chair (with J. C. Seamus Davis and Peter Johnson of BNL) of the 2010 CES-EFRC Fall Workshop, November 10 – 13, 2011, Stony Brook, NY.
- Co-Chair [with Catherine Pepin, Karyn Le Hur, and Anuradha Jagannathan; all women organizers]. *"ICAM Workshop on Emergent Quantum Phenomena from the Nano to the Macro World"*, Cargèse, FR. <http://icamconferences.org/cargese09/>, July 6-18, 2009.
- Co-Chair [with Rick Greene], *"ICAM Workshop on the Fe-Pnictide Superconductors"*, University of Maryland, College Park, MD, USA. November 15-16, 2008. This was the 1st International workshop on the Fe-based superconductors to take place in the USA, [http://icam-i2cam.org/index.php/events/detail/fe-pnictide\\_and\\_related\\_superconductors/](http://icam-i2cam.org/index.php/events/detail/fe-pnictide_and_related_superconductors/)
- Co-Chair [with Setsuko Tajima], "Special Romp Session on the New Fe-Pnictide Superconductors", part of the International Conference on Low Temperature Physics (LT-25), [http://physicsworld.com/blog/2008/08/lets\\_romp.html](http://physicsworld.com/blog/2008/08/lets_romp.html) August 9, 2008.
- Co-Chair [with Charles Simon], *"Tenth Franco-American Workshop on Complex Oxides: Strongly Correlated Fermions, Functional Materials and Their Interplay"*, a continuation of the collaboration between UIUC and the CNRS, Caen, FR, July 3-4, 2006.
- Chair, *"Ninth Franco-American Workshop on Complex Oxides: Strongly Correlated Fermions, Functional Materials and Their Interplay"*, a continuation of the collaboration between UIUC and the CNRS, Urbana, IL, January 17-18, 2006.

- Co-Chair [with Nicole Bontemps, Ricardo Lobo and Pierre Monod] “*Eighth Franco-American Workshop on Complex Oxides: “Strongly Correlated Fermions, Functional Materials and Their Interplay”*”, a continuation of the collaboration between UIUC and the CNRS, ESPCI, Paris, FR, December 16-17, 2004.
- Chair, “*Seventh Franco-American Workshop on Complex Oxides: “Strongly Correlated Fermions, Functional Materials and Their Interplay”*”, a continuation of the collaboration between UIUC, Northwestern University and the CNRS, Urbana, IL, May 22-25, 2003
- Co-Chair [with Mike Norman (Argonne) and Herb Mook (Oak Ridge)], American Physical Society, Division of Materials Physics Focused Topic Session: “*High-Temperature Superconducting Materials: Relations between Physical and Electronic Structure*”, at the 2002 March Meeting of the American Physical Society, Indianapolis, IN, March 17-22, 2002.
- Co-Chair [with Ralph Nuzzo (UIUC, Chemistry), George Whitesides (Harvard, Chemistry) and David Pines (UIUC and Los Alamos, Physics)], Institute for Complex and Adaptive Materials (ICAM) workshop on “*Designing Emergent Matter*”, Santa Fe, NM, January 8-12, 2001.
- Co-Chair, Gordon Research Conference on “*Correlated Electrons*”, June 26–30, 2000.
- Co-Chair [with Subir Sadchev], Gordon Research Conference, “*Correlated Electrons*”, New Hampshire, July 19-23, 1998.
- Co-Chair [with Tom Lemberger & Nigel Goldenfeld], “*Superconductivity with a Smile: A Symposium in Honor of the Wisdom and Wit of Donald M. Ginsberg*”, Urbana, IL, April 18-19, 1997.
- Co-Chair, Gordon Research Conference on “*Correlated Electrons*”, July 21–25, 1996.
- Chair: “*Superconducting Materials Symposium*”, Fall Meeting of the Materials Research Society, Boston, MA, 1992.
- Advisory and/or Program committee for many international conferences, including a NATO-Advanced Study Institute & The 22<sup>nd</sup> - 26<sup>th</sup> International Meetings on Low-Temperature Physics, the 7<sup>th</sup> and 8<sup>th</sup> Materials and Mechanisms in Superconductivity-High-Temperature Superconductivity Conferences in Rio de Janeiro, Brazil 2002 and Dresden, Germany 2006, respectively; The international conference on Strongly Correlated Electrons, 2005 (Vienna) and 2007 (Houston); Gordon Research Conference on Superconductivity (every 1.5 years).

#### **PATENT:**

- “Metal Alkoxides and Methods of Making Same”, Patrick J. Hentges, Laura H. Greene, Margaret Mary Pafford, Glenn Westwood and Walter G. Klemperer. Patent Number: US 6,838,404 B2 Award Date of Patent: January 4, 2005.

#### **TEACHING EXPERIENCE:**

- 2015 COACH workshops: Materials Research Society Africa Meeting, December 6-13 Accra, Ghana
- 2015 COACH workshops: Three sets, October 3-12, 2015, Muscat, Nizwa, and Sohar, Oman
- 2015 COACH workshops for the US-India Joint Commission, supported by the Department of State, August 29-September 1 (Mumbai) and 2-4 (Guwahati)  
COACH workshop at the Fifth Indonesian-American Kavli Frontiers in Science Meeting, July 26-August 1, Makassar, South Sulawesi, Indonesia.

- 2015 COACH workshops for Oak Ridge National Laboratories, June 28, Oak Ridge, TN
- 2015 Spring school on Heavy Fermion and other strongly correlated electron systems, April 13-14, 2015, Zhejiang University, Hangzhou, China.
- 2015 COACH workshops for Argonne National Laboratories, March 20, Argonne, IL.
- 2014 COACH workshops for the US-India Joint Commission, supported by DST and State Depart., September 2-5 (Delhi) ;7-10 (Bangalore), India. (<https://indiabioscience.org/columns/indian-scenario/notes-from-the-career-building-workshop-for-women-scientists-at-nias>).
- 2014 Physics 140 "How Things Work" (for non-science majors). Instituted new web-based learning techniques for this semester.
- 2014 COACH workshop at the Fourth Indonesian-American Kavli Frontiers in Science Meeting, June 20-25 2014, Medan, Sumatra, Indonesia.
- 2014 COACH and L'Oriel-supported workshop, January 7-8, Bangkok, Thailand.
- 2013 COACH workshop Including women scientists from Tunisia, Algeria, and Morocco, March 5-7, Casablanca, Morocco.
- 2013 COACH workshop at the Third Indonesian-American Kavli Frontiers in Science Meeting workshops June 22-23, Bali, Indonesia.
- 2013 Lecturer at the International Summer School on Superconductivity – Theory, Experiments, and Phenomena (STEP – 2013), August 5 – 17, 2013, Cargèse, Corsica, FR.
- 2013 Physics 427: Thermodynamics and Statistical Mechanics (undergraduate).
- 2013 Lecturer at the China/US Joint Winter School on Novel Superconductors, January 21 – 23, 2013, Hong Kong
- 2013 Lecturer at the Summer School for Outstanding Students in Basic Sciences, Zhejiang University (eight hours of lectures), July 15, 2013, Hangzhou, China
- 2010-12 Physics 496 / 499 Senior Thesis (two semester course)
- 2010/14 Physics 140 "How Things Work" (for non-science majors)
- 2009 Lecturer at the "Summer School on Novel Superconductors", sponsored by the International Center for Materials Research (ICMR), University of California at Santa Barbara and the Graduate School of Excellence in Materials Science, Mainz, Germany, August 2-15, 2009 Santa Barbara, CA
- 2009 Master Class (series of lectures for graduate students) for Physics@FOM, Veldhoven, NL, January 18 – 22, 2009.
- 2008-09 Physics 427: Thermodynamics and Statistical Mechanics (undergraduate).
- 1992-02 Physics 199B: One general lecture per year to Freshmen physics majors, UIUC.
- 2007 Physics 460: Condensed Matter Physics (undergraduate).
- 2002-07 Physics 140: How Things Work (for non-science majors; grew from ~60 to ~630 students).
- 2007 Lecturer at the I2CAM/ FAPERJ Spring School on Emergent Matter, "New phenomena in highly correlated quantum matter", Rio de Janeiro, Brazil, March 11-17, 2007.
- 2004 Visiting Lecturer, CNRS, ORSAY, FR.
- 2001-02 Physics 150: Concepts of Modern Physics.
- 2000 Lecturer at the National Science Foundation Summer School for Condensed Matter and Materials Physics, (Boulder CO). "Tunneling into Unconventional Superconductors" (series of 3 lectures).
- 1998-00 Physics 386 and 387: Quantum Mechanics (undergraduate).
- 1997-98 Physics 361: Thermodynamics and Statistical Mechanics (undergraduate).



- 1995 Lecturer at the Midwest Superconductivity Consortium (MISCON) Summer School on Josephson Junctions for High-Temperature Superconductors (Columbia, MO): *"Josephson Junction Fabrication for High-Temperature Superconductors"*.
- 1995-96 Physics 108: Introduction to Waves for physics and engineering majors.  
Lecturer and administrator to 450 and 750 students; 10 and 18 teaching assistants for the Fall and Spring semesters, respectively.
- 1993-94 Physics 389: Solid State Physics (undergraduate).
- 1992-95 Physics 108: General physics (waves) for engineering and physics majors.
- 1989 Lecturer at the NATO-Advanced Study Institute on Superconducting Materials (Bad Nauheim): *"Tunneling Spectroscopy"*, 1989.
- 1987- Many (hundreds of) lectures presented to general audiences (see Invited Talks).  
pres
- 1977-79 Teaching assistant, Cornell University.
- 1973-76 Lecturer and teaching assistant, The Ohio State University.

**RESEARCH ADVISING****Post-Doctoral Associates and Visiting Scientists (at University of Illinois at Urbana-Champaign):**

- 2015-2016 Prof. Narendra Jaggi, Illinois Wesleyan, for a Sabbatical.
- 2014 Steve Ziemak, ICAM Fellow from University of Maryland, group of JP. Paglione.
- 2013-2014 Mauro Tortello, *Visiting Fulbright Scholar*, from Istituto di Ingegneria e Fisica dei Materiali, Torino, Italy
- 2012-2014 Jennifer Misuraca, *ICAM Fellow* (with Prof. Meigan Aronson, Stony Brook/Brookhaven)
- 2009-2010 Yize Li (with Prof. James N. Eckstein; From U. VA; presently at U. WI.)
- 2010-2013 Wan Kyu Park; promoted to Visiting Research Assistant Professor
- 2006-2007 Heiko A. Stalzer (Heidelberg)
- 2005-2006 Sivaperumal Uthayakumar (from ETH, Geneva, presently at Max Plank, Stuttgart)
- 2005-Su Sangita Bose (from and presently at TATA Institute, Mumbai, INDIA)
- 2002-2010 Wan Kyu Park (from MIT)
- 2000-2001 Elisabeth Dumont (from ETH, Geneva, presently in Luxembourg)
- 1999-2001 Xiuling Li (with Prof. Paul Bohn, Chemistry; presently Professor in ECE at UIUC).
- 1998-2001 Hervé Aubin (from and presently at CNRS-ESPCI, Paris, FRANCE)
- 1995-1997 Marco Aprili (from and presently at CNRS, Orsay; and ESPCI, Paris, FRANCE)
- 1992-1994 Nir Haas (from Tel Aviv, presently at Rafael Government Lab, Haifa, ISRAEL)
- 1990-1992 Jerome Lesueur (from and presently at CNRS, Orsay; and ESPCI, Paris, FRANCE)
- 1989-1990 Monique Giroud (from and presently at CNRS, Grenoble, FRANCE)

**Ph.D.'s Granted (University of Illinois at Urbana-Champaign):**

- Han Zhao (expected 2016)
- 2015 Cassandra Renee Hunt (Miller Fellow, Berkeley)
- 2014 Hamood Zafir Arham (Intel, Hillsboro, OR)
- 2009 Xin Lu (Zhejiang University, Hongzhou, China)
- 2004 Patrick Hentges (Intel, Hillsboro, OR)
- 2004 Glenn Westwood (with Prof. Paul Bohn, Chemistry; Avantor Performance Materials, Inc., Phillipsburg, NJ)
- 2001 Elvira Stanescu (nee Paraoanu, Badica; presently at U. VA)
- 2000 Margaret M. Pafford (with Prof. Walter Klemperer, Chemistry; Rohm and Hass Company, Philadelphia, PA)
- 1999 Igor V. Roshchin (Prof. at TAMU)
- 1999 Adam C. Abeyta (Naval Research Laboratory, San Diego, CA)
- 1999 Troy A. Tanzer (Chemistry; Advanced Micro Devices, Austin TX)
- 1997 Mark W. Covington (Seagate Research, Minneapolis, MN)
- 1996 Jeffrey F. Dorsten (Chemistry, Shell Oil, Houston, TX)

**Other Graduate Students (at University of Illinois at Urbana-Champaign):**

- 2014-15 Cesar O. Ascencio (still at UIUC)
- 2013 Charles Steiner (still at UIUC)
- 2013-Su Progna Banerjee (still at UIUC)
- 1994-1995 Kristana Bloom (now at a computer company in NJ): MS in 1995
- 1997-2001 Diane E. (Betsy) Pugel (now at NASA Goddard)

**Undergraduate and Exchange Students (at University of Illinois at Urbana-Champaign):**

2015-pres Brian Korn (Independent Study Student)  
 2015-Su Emily Herman (REU Student from St. Norbert College, WI)  
 2014-pres Omar Mehio (Independent Study Student)  
 2014-pres Alex Noddings (Independent Study Student)  
 2014-Su Andrew Boomer (Independent Study from University of Oregon)  
 2014-pres Prathum Saraf (Independent Study Student)  
 2014-pres Miller Wesselhoff (Independent Study Student)  
 2014-pres Zhenyu Dai (Independent Study Student)  
 2014-pres Julia Zuo (Independent Study Student)  
 2014-pres Ashley Hemmingway (Independent Study Student)  
 2014-Su Amanda Landcastle (REU from The College at Brockport, NY)  
 2013-pres Konrad Genser (Independent Study Student)  
 2013-pres Michael Worek (Independent Study Student)  
 2013-14 Cody Jones (Independent Study Student)  
 2013-14 Margaret McCarter (REU from Illinois Wesleyan, then independent study)  
**-Goldwater Scholarship, 2014**  
 2013-pres Ryan Tapping (Independent Study Student)  
 2013-pres Lunan Sun (Independent Study Student)  
 2013-pres Matthew Dwyer (Independent Study Student)  
 2012-13 Martin Liu (independent study student)  
 2012-pres Sanjay Narasiwodeyar (independent study student)  
**-Robert A. Stein Award, 2013**  
 2012-Su James Hanson (REU from Missouri State)  
 2011-14 Rebecca Glaudell (independent study student)  
**-Laura B. Eisenstein Award, 2014**  
**-Ernest M. Lyman Prize, 2013**  
**-Thomas A. Prickett Engineering Award, 2013**  
**-Commonwealth Edison/Beryl Bristow Endowed Award, 2011-12**  
 2011-12 Jennifer Dijohn (Illinois Scholar Undergraduate Researcher, ISUR)  
**-Commonwealth Edison/Beryl Bristow Endowed Award, 2012**  
 2011-12 Ikoro Ikoro (independent study student)  
 2011-12 Cheng Wan (independent study and senior thesis student)  
 2011-Su Sachiko Graber (REU from Grinnell)  
 2011-Su Song Zhang (exchange student from Singapore)  
 2011-13 Kevin Coughlin (independent study and senior thesis student)  
 2011-13 Yunjo Lee (independent study and Senior Thesis student)  
 2010-11 Christopher Fu Lamb (independent study student)  
 2010-11 Manish Shankla (independent study student)  
 2010 Chase Boren (independent study student)  
 2010-13 Rob Looby (independent study and senior Thesis Student)  
 2010-Su Ryan Goetz (REU from Illinois Wesleyan)  
 2010-Su Anthony O'Donovan-Zavada (REU from Coe College)  
 2010-Su Jay Sheth (summer intern from Banaras Hindu University, India)

2009-10 Jose Antonio Garmilla Alonso (exchange student from Mexico)  
 2009-10 Jeremy Tartar (independent study student)  
 2009&10 Su Anuj Tejpal (summer intern from Banaras Hindu University, India)  
 2009 Michelle (Brittany) Payne (Independent study student)  
 2009 Su Adam N. Chambers (REU-09 student)  
 2009 Su Rasheedat S. Yahaya (REU-09 student)  
 2009-10 Adam Saied Ahmed (Senior Thesis Student)  
 2009-10 Yildiz Kabran (independent Study Student)  
 2008-09 Alex Albanese (independent Study Student)  
 2008-09 Loc Phuc Nguyen (Independent Study Student)  
 2008-09 Anne M. Glaudell (Senior Thesis Student), received:  
 - **The 2009 Laura B. Eisenstein Award for exceptional women physics students**  
 2008-09 Jonathan E. Pautler (Senior Thesis Student)  
 2008 Sam Johnson (Sophomore Independent Study Student)  
 2008-09 Richard Jones (Senior thesis student)  
 2008-09 Akshay Anant Ghalsasi (Independent Study Student, started as Freshman)  
 2008-09 Zhen Wah Tan (independent study and senior thesis student), received:  
 - **The Robert E. Hetrick Outstanding Senior Thesis Award for 2009**  
 - **Ernst M. Lyman Prize for the outstanding senior in physics, 2009**  
 - **Bronze Tablet, for sustained academic achievement, 2009**  
 - **Richard K. Cook Scholarchip, 2008**  
 2008 Su Alison Pawlicki (REU-08 student from Florida State), received:  
 - **Lannutti Award for Undergraduate Research at FSU**  
 - **Lynn Shannon Proctor award for Achievement in Physics by a minority student**  
 - **inducted into Sigma Pi Sigma National Physics Honor Society**  
 2007-8 **Engineering Open House Project:** Jason Didier, John Docauer, Jason Jones,  
 Jonathan Naber, Joseph Newcomb, Suzanne Sullivan, and Ryan Trumbo  
 2008-09 Yi-Hsuan Lin (Independent Study Student)  
 2007-08 Ryan Murphy (Independent Study Student)  
 2007 Su Daisy Hassani (High School Student)  
 2007 Su Gregory Rosen (REU-07 Student from Ohio University)  
 2006-2008 Jiongyi Tan (Independent Study Student and Senior Thesis Student)  
 2006-2008 Veronica Jacome (Independent Study student)  
 2006-2008 Julien Ansermet (Independent Study and Senior Thesis Student)  
 -**Shell Foundation Scholar, 2007**  
 2005 Su Kane Baker (REU-05 Student)  
 2005 Su Jeremy McMinis (REU-05 Student)  
 2005-2006 Andy O'Brien (REU-05 and Senior Thesis Student)  
 2004-2005 Caitlin Jo Ramsey (Independent study and REU-05 Student)  
 2004-2005 Jorge Elizondo (Exchange Student from Mexico)  
 2003-2005 Karen Parkinson (Independent Study, Senior Thesis and REU-04 Student)  
 2004 Su Erika Smith (REU-04 Student)  
 2003-2004 Florian Wilken (Exchange Student from Heidelberg)  
 2004 Su Alex Thaler (REU-04 Student)  
 2003-2004 Chris Leshar (REU-04, Student Senior Thesis): **Senior Thesis Award 2004**  
 2002 Su Erin De Pree (REU-03 Student)  
 2000-2006 Justin Elenewski (High School, Independent Study, REU-04, Senior Thesis Student)  
 2000 Su Ryan Carmichael, (Summer High-School Student)

1999-2000 Hartmut Gimple (Exchange Student from Heidelberg)  
1997-1998 Markus Dittrich (Exchange Student from Regensburg)  
1997-1998 William Murphy (Visiting Student from Illinois Wesleyan)  
1997-1998 Donna M. Maier (Independent Study, Chemistry, UIUC)  
1997-1998 Katherine Krajnak (Independent Study)  
1996-1997 Bernhard Niedermeyer (Exchange Student from Regensburg)  
1995-1996 Gregor Kuchler (Exchange Student from Regensburg)  
1994-1995 Roland Scheuerer (Exchange Student from Regensburg)  
1994-1995 Kristana Bloom (Independent Study)  
1993-1994 Johannes Beer (Exchange Student from Regensburg)

**Technical Laboratory Assistants (at University of Illinois at Urbana-Champaign)::**

2009-10 Richard Telly Jones  
1983-03 William L. Feldmann

**FUNDED and PENDING PROPOSALS (1992-present):****Pending****Currently Funded**

- Creativity Extension for *“Quasiparticle Scattering and Tunneling Spectroscopic Studies on Kondo Lattices, Topological Insulators and Superconductors”*, Wan Kyu Park, PI, National Science Foundation, Division of Materials Research, October 2015, two years, \$140k/year.
- *“Center for Emergent Superconductivity”* Energy Frontier Research Center: Brookhaven National Laboratory (lead), Argonne National Laboratory, and The University of Illinois. Basic Energy Sciences, Department of Energy, UIUC part is \$3.584 M/year for 4 years, 08/15/14 – 08/14/18, Associate Director.

**Previously Funded**

- *“REU Site: Opportunities in Physics Research at Illinois.”* Co-PIs Kevin Pitts, Toni Pitts, and Dale Van Harlingen, National Science Foundation 3/2/11 – 3/2/14, \$307,599.
- *“Quasiparticle Scattering and Tunneling Spectroscopic Studies on Kondo Lattices, Topological Insulators and Superconductors”*, co-PI Wan Kyu Park, National Science Foundation, Division of Materials Research, October 2012, \$355,035 for three years.
- *“Advanced Materials: Rapid Materials Discovery,”* James N. Eckstein (PI), Laura H. Greene (co-PI), Daniel P. Shoemaker (co-PI), Jian-Min Zuo (co-PI), University of Illinois Advanced Research Initiatives (ARI), \$50,000, June 1 – December 31, 2014
- *“SCES@60: Where are we now?”* Proposal to the Gordon and Betty Moore Foundation to support a symposium on the 60<sup>th</sup> anniversary of the identification of strongly correlated electron systems, October 18, 2014, Urbana, IL, \$15,000.
- *“Point Contact Spectroscopy in Half-Heusler Compounds,”* “co-PI Johnpierre Paglione, University of Maryland, ICAM travel award to support the visit of UMD graduate student Steve Ziemak to my laboratory for the summer of 2014.
- *“Innovative avenues towards developing new families of high temperature superconducting materials, and measurements of their electronic structure”*, co-PI Meigan Aronson, Brookhaven National Laboratory and Stony Brook. Institute for Complex and Adaptive Matter (ICAM), 8/14/2012 – 8/15/2014, \$22,000 / yr for two years.
- *“Center for Emergent Superconductivity”* Energy Frontier Research Center: Brookhaven National Laboratory (lead), Argonne National Laboratory, and The University of Illinois. Basic Energy Sciences, Department of Energy, for \$23M over 5 years with Illinois receiving ~\$1.26 M/yr. . I am an Associate Director of the Center and Direct the UIUC branch. 8/14/2009-8/13/2014
- *“Becoming Engaged: Initiatives That Can Change Science Education.”* An ICAM/Aspen Center for Physics 50<sup>th</sup> Anniversary Workshop, (22-25 July, 2012, Aspen, CO) Co-PIs: David Pines, U C Davis; Julien Bobroff, Orsay; Dudley Herschbach Harvard; & Elizabeth Simmons, Michigan State), ICAM, \$30,000.
- *“The X<sup>th</sup> International Conference on the Materials and Mechanisms of Superconductivity (M2S 2012)”*, (July 29 – August 3, 2012, Washington, DC.), co-PIs George Crabtree and Peter Johnson, Air Force Office of Scientific Research (AFOSR), \$15,000.

- *“The X<sup>th</sup> International Conference on the Materials and Mechanisms of Superconductivity (M2S 2012)”*, (July 29 – August 3, 2012, Washington, DC.), co-PIs George Crabtree and Peter Johnson, NSF, \$10,000.
- *“The X<sup>th</sup> International Conference on the Materials and Mechanisms of Superconductivity (M2S 2012)”*, (July 29 – August 3, 2012, Washington, DC.), co-PIs George Crabtree & Peter Johnson, IUPAP, €15,000.
- *“The X<sup>th</sup> International Conference on the Materials and Mechanisms of Superconductivity (M2S 2012)”*, (July 29 – August 3, 2012, Washington, DC.), co-PIs George Crabtree and Peter Johnson, Department of Energy – Basic Energy Sciences, \$50,000.
- *“The X<sup>th</sup> International Conference on the Materials and Mechanisms of Superconductivity (M2S 2012)”*, (July 29 – August 3, 2012, Washington, DC.), co-PIs George Crabtree and Peter Johnson, Institute for Complex and Adaptive Matter (ICAM), \$25,000.
- *“Quantum Materials at the Nanoscale: Studies of the Andreev conversion processes between conventional and unconventional superconductors and normal metals”*, Cluster Proposal (11 members) to the Department of Energy-Basic Energy Sciences (DoE-BES), my part was ~\$150,000/year, 7/01/07 - 6/30/10.
- *“Studies of the Andreev conversion process at interfaces between conventional and unconventional superconductors and normal metals”*, National Science Foundation – Division of Materials Research (NSF-DMR), \$360,000 over three years. 6/1/2007 – 5/31/2010
- *“ICAM Workshop on Fe-Pnictide and Related Superconductors”* (November 16-17, 2008), Basic Energy Sciences, Department of Energy, \$5,000. 10/01/2008 – 03/31/2009
- *“ICAM Workshop on Fe-Pnictide and Related Superconductors”* (November 16-17, 2008), National Science Foundation, \$5,000. 10/01/2008 – 03/31/2009
- *“ICAM Workshop on Fe-Pnictide and Related Superconductors”* (November 16-17, 2008), AFSOR, \$10,000. 10/01/2008 – 03/31/2009
- *“ICAM Workshop on Fe-Pnictide and Related Superconductors”* (November 16-17, 2008), International Institute for Complex and Adaptive Materials (I2CAM), \$40,000. 10/01/2008 – 03/31/2009
- *“ICAM Workshop on Fe-Pnictide and Related Superconductors”* (November 15-16, 2008), Department of Energy through the Frederick Seitz Materials Research Laboratory (FSMRL), \$1,000. 10/01/2008 – 03/31/2009
- *“Andreev Reflection Spectroscopy of Novel Superconducting Materials”*, University of Illinois Campus Research Board, \$12,500. 10/31/2006 – 07/31/2007
- *“Particle Conversion in Unconventional Superconductors: Andreev Reflection at the Heavy-Fermion Superconductor / Normal Metal Interface”*, University of Illinois Center for Advanced Study, (no funds: requesting Fa-06 teaching release), granted for 2006-2007
- *“Functional and Nanoscale Materials Systems: Frontier Programs of Science at the Frederick Seitz Materials Research Laboratory”*, Department of Energy through the Frederick Seitz Materials Research Laboratory \$165,128. 1/01/2006 – 12/31/2006
- *“ $\beta$ -NMR Search for Spontaneous Magnetism near the Surface of Unconventional Superconductors”* G.D. Morris, Z. Salman, W.A. MacFarlane, R.F. Kiefl, K.H. Chow, R.H. Heffner, L.H. Greene, G.M. Luke, Y. Maeno and J.H. Brewer, (TRIUMF, Canada).

- *“Strongly-Correlated Electron Systems: Studies of Functional Oxides, Complex Superconductors, Novel Magnetic Materials and their interplay”*, Laura H. Greene, University of Illinois at Urbana-Champaign and Professor Nicole Bontemps, Laboratoire de Physique du Solide, ESPCI, CNRS, Paris, FR. This supports travel for 5 researchers between UIUC and FR for four years and 4 years of per-diems (University of Illinois International Programs, ~\$100,000), 2002-2006
- *“Cantilever Andreev Tunneling (CAT): A New Method for Planar Tunneling and Point Contact Spectroscopy of Unconventional Superconductors”* (Department of Energy, 1 year, \$100,000). August 2004-2005
- *“Fragility of the d-wave Order Parameter at Interfaces and Defects in High-Temperature Superconductors”*, National Science Foundation, Focused Research Group (FRG) in Collaboration with J. N. Eckstein, M. B. Salamon, D. J. van Harlingen, J. A. Sauls (Northwestern) and A. Yazdani. Awarded for three years (\$427,892 to UIUC). 1/1/2000-12/31/2002
- *“Verification of the Broken Time Reversal Symmetry in Superconducting YBCO”*, Proposal to the Intense Polarized Neutron Source (IPNS), POSY neutron spectrometer for experiments of Grazing-Incidence Polarized Neutron Scattering at Argonne National Laboratories. 2001
- *“Proposal for Low-Energy Muon Rotation Studies of Broken Time Reversal Symmetry in High-Temperature Superconductors”* to the Paul Scherrer Institute, Vilagen Switzerland. 2001.
- *“Spin Transport across Superconducting Interfaces”*, Office of Naval Research Augmentation Award for Science and Engineering Research Training (AASERT) (\$184,500 for three years). 1998-2001
- *“Low-temperature Studies of Broken Time-Reversal Symmetry in High-Temperature and Unconventional Superconductors”*, University of Illinois Campus Research Board. (\$25,000). 5/2000 – 11/2000
- *“Proximity-Effects, Tunneling, Novel Film Growth and Applications in High- $T_c$  Cuprates”*, by the National Science Foundation through the Science and Technology Center for Superconductivity, (~\$115,000/year). 1/9/1993 – 1/31/1999
- *“Charge Transport Across Superconductor-Semiconductor and Superconductor-Metal Interfaces”*, Department of Energy Basic Energy Sciences New Initiative Grant. Group funded: Greene (physics experiment), van Harlingen (physics experiment) Goldbart (physics theory), Bohn (Chemistry) and Klem (EE/Mat.Sci - Sandia) (\$250,000 for FY96 and \$500,000 per year through FY98). 1996-1998
- *“Proximity Effects and Tunneling  $YBa_2Cu_3O_7$  films as a function of Crystallographic Orientation”*, National Science Foundation, (\$70,000 per year for three years). 6/15/1995-6/14/1998
- *“Spin Injection and Detection at a Ferromagnet - High-Temperature Superconductor Interface”*, Office of Naval Research, (\$25,000/year for three years). 6/15/95-3/14/1998
- *“Charge Transport Across Superconductor-Semiconductor and Superconductor-Metal Interfaces”*, University of Illinois – Center for Advanced Study.. (\$500 and release from one semester of teaching). 1996-1997
- *“Proximity-Effects in Superconductor-Semiconductor Structures”* NSF through the Materials Research Science and Engineering Center, Materials Research Laboratory at the University of Illinois (~\$40,000/year). 1/1/1993 - 12/31/1996



- *“Plasma Diagnostic Analysis of the Planar Magnetron Sputter Deposition Process* in collaboration with Joseph A. Johnson, III, Florida A&M University. Inter-institutional Collaborations grant, University of Illinois, (\$1,500). 11/16/1994
- *“Plasma Diagnostic Analysis of the Planar Magnetron Sputter Deposition Process”*, in collaboration with R. W. Giannetta of the University of Illinois at Urbana-Champaign and Joseph A. Johnson, III, Florida A&M University, Inter-institutional Collaborations Grant, University of Illinois, (\$2,000). 11/17/1993
- *“Proximity-Effects in Superconductor-semiconductor Structures”*, University of Illinois Campus Research Board Beckman Award. (\$29,000). 11/4/1993 - 5/31/1993

**INVITED TALKS:**

1. April 24, 2016  
Plenary Talk, 5<sup>th</sup> International Conference on Superconductivity and Magnetism (ICSM2016)  
Fethiye, Turkey
2. April 23, 2016  
COACH workshops at the Student Summer School just before the 5<sup>th</sup> International Conference on Superconductivity and Magnetism (ICSM2016) Fethiye, Turkey
3. March 12, 2016  
“Publishing in Peer Reviewed Journals” workshop giving at the US-Brazil Young Physicists Forum,  
March 12-13, 2016, Baltimore, MD.
4. March ?, 2016  
Plenary talk, Cuban Physical Society Meeting, March 7 – 11, 2016, Havana, Cuba. (and probably  
other talks in Cuba, TBD)
5. January 25, 2016  
“High-Temperature Superconductivity: Taming Serendipity” Plenary Talk, Taiwan Physical Society  
Meeting, January 25-27, 2016, National Sun Yat-sen University in Kaohsiung, Taiwan.
6. January 23, 2016  
“Deciphering Electron Matter in Unconventional Superconductors” Colloquium, Institute of  
Physics, National Taiwan University, Taipei, Taiwan.
7. January 22, 2016  
“Detection of Electron Matter in Fe pnictides, Fe-chalcogenides, and Heavy Fermions with Point  
Contact Spectroscopy” International Workshop on Unconventional Superconductors, Academia  
Sinica, Taipei, Taiwan
8. January 13, 2015  
“High-Temperature Superconductors: How Taming Serendipity Could Change our World” HNFML-  
Backwoods Bistro Science Café, Tallahassee, FL.
9. January 12, 2016  
“High-Temperature Superconductivity: Taming Serendipity” Colloquium, Department of Physics,  
University of Florida, Gainesville, FL.
10. January 11, 2016  
“Deciphering Electron Matter with Point Contact Spectroscopy” Condensed Matter Physics  
Seminar, Department of Physics, University of Florida, Gainesville, FL.
11. January 8, 2016  
Banquet Speech (blissfully short), Physical Phenomena in High Magnetic Fields (PPHMF-8), January  
6-9, 2016, Florida State University, Tallahassee, FL.
12. December 10, 2015  
Series of COACH workshops at the Africa Materials Research Society Meeting, December 6-11,  
Accra, Ghana.
13. December 10, 2015  
“High-Temperature Superconductivity: Taming Serendipity” Plenary Talk at the Africa Materials  
Research Society Meeting, December 6-11, Accra, Ghana.
14. December 2, 2015  
“High-Temperature Superconductivity: Taming Serendipity” Advanced Photon Source Colloquium  
at Argonne National Laboratory, Argonne, IL.

15. November 25, 2015  
“High-Temperature Superconductivity: Taming Serendipity” Colloquium, ESPCI, Paris, FR.
16. November 20, 2015  
“High-Temperature Superconductivity: Taming Serendipity” Colloquium, Department of Physics, University of Montreal, Montreal, CA.
17. November 19 2015  
“Detection of Correlated Electron Matter with Point Contact Spectroscopy” Seminar, Department of Physics, Sherbrooke University, Sherbrooke, Ontario, Canada
18. October 22, 2015  
“Deciphering Electron Matter in Unconventional Superconductors” Annual Meeting of the Korean Physical Society, October 20 – 23, 2014, Gyung Ju, Korea.
19. October 21, 2015  
“Deciphering Electron Matter in Unconventional Superconductors” at the KAST (Korean Association of Science and Technology) Prestige Workshop, October 21, 2015, Seoul, Korea
20. October 2-13, 2015  
Series of three COACH Workshops on Proposal Writing in Muscat, Sohar, and Nizwa, Oman.
21. September 26, 2015  
“Detection of Electron Matter in Fe pnictides, Fe-chalcogenides, and Heavy Fermions with Point Contact Spectroscopy” at the 3<sup>rd</sup> US-DoE Basic Energy Sciences / Chinese Academy of Sciences Workshop, September 26-27, 2015, Brookhaven National Laboratory, Upton, NY.
22. September 2-4, 2015  
COACH Workshops for the US-India Joint Commission, Guwahati, India.
23. August 29-September 1 2015  
COACH Workshops for the US-India Joint Commission, Pune, India.
24. August 27, 2015  
“Materials and Mechanisms – We know the answers, but what are the questions?” After-dinner speech at the 2015 International Conference on the Materials and Mechanism of Superconductivity (M<sup>2</sup>S 2015), August 24-28, 2015, Geneva, Switzerland.
25. August 25, 2015  
“Hybridization and Coherence Crossover in Heavy Fermions” The 2015 International Conference on the Materials and Mechanism of Superconductivity (M<sup>2</sup>S 2015), August 24-28, 2015, Geneva, Switzerland
26. July 27, 2015  
Four COACH Workshops as part of the 5<sup>th</sup> U.S. and Indonesian Academies of Sciences joint Kavli Frontiers of Science Symposium, Makassar, South Sulawesi, Indonesia.
27. July 13, 2015  
“Detection of Electron Matter in Fe-pnictides, Fe-chalcogenides, and Heavy Fermions” International Workshop on Concepts and Discovery in Quantum Matter (CDQM), July 12-15, Cambridge, UK.
28. July 6 2015  
“Hybridization and Formation of Coherent Heavy Fermions: Non-Fermi liquid detection with point contact spectroscopy” The 2015 International Conference on Magnetism (ICM2015) July 5 – 10, 2015, Barcelona, Spain.

29. June 29, 2015  
"Enhancing Global Engagement and Some US Education & Outreach" Global Science Engagement and Education (GSEE) Summit in Asia "Initiatives That Can Change Science Education" 28 -30 June 2015, National Donghwa University, Hualien, Taiwan.
30. June 23, 2015  
COACh Workshops, Oak Ridge National Laboratory, Oak Ridge, TN.
31. June 10, 2015  
Speech / presentation of plaque signifying Fermilab as an APS Historical Site, Fermilab, Batavia, IL
32. June 1, 2015  
"Hybridization and Formation of Coherent Heavy Fermions: Non-Fermi liquid detection with point contact spectroscopy" Condensed Matter Physics Seminar, Seoul National University, Seoul, Korea.
33. May 27, 2015  
"Discussion Leader on Heavy Fermions" Gordon Research Conference on Superconductivity, Chinese University of Hong Kong, May 24-29, 2015, Hong Kong, China.
34. May 23, 2015  
"Deciphering Electron Matter in Unconventional Superconductors" Graduate Research Seminar, preceding the Gordon Research Conference on Superconductivity, Chinese University of Hong Kong, May 24-29, 2015, Hong Kong, China.
35. May 1, 2015  
"Detection of Electron Matter in Fe-pnictides, Fe-chalcogenides, and Heavy Fermions" Condensed Matter Physics Seminar, Iowa State University and Ames Laboratory, Ames, IA.
36. April 28, 2015  
"High-Temperature Superconductivity: Taming Serendipity" General Physics Colloquium, University of Florida, Tallahassee, FL.
37. April 28, 2015  
"Detecting Electron Nematicity in Fe Pnictides and Chalcogenides with Point Contact Spectroscopy: A new way to detect non-Fermi liquid behavior" Condensed Matter Physics Seminar National High Magnet Field Laboratory (NHFML), Tallahassee, FL.
38. April 16, 2015  
"Detection of Electron Matter in Fe-pnictides, Fe-chalchognides, and Heavy Fermions" International Workshop/School on Heavy Fermions and Quantum Phase Transitions, April 15 – 17, 2015, Zhejiang University, Hangzhou, China.
39. April 15, 2015  
"High-Temperature Superconductivity: Taming Serendipity" Public Lecture at Zhejiang University, Hangzhou, China.
40. April 14, 2015  
"Point Contact Spectroscopy and Applications to Materials Research" on Heavy Fermion and other strongly correlated electron systems", April 13-14, 2015, Zhejiang University, Hangzhou, China.
41. April 4, 2015  
"High-Temperature Superconductivity: Taming Serendipity" Saturday Engineering for Everyone, University of Illinois at Urbana, Champaign, Urbana, IL.

42. April 1, 2015  
“Detection of Electron Nematicity in Fe Pnictides and Chalcogenides” Condensed Matter Physics Seminar, University Minnesota, Minneapolis, MN.
43. March 31, 2015  
“Deciphering Electron Matter in Novel Superconductors”, General Physics Colloquium, University of Minnesota, Minneapolis, MN.
44. March 25, 2015  
“Detection of Electron Matter in Fe pnictides, Fe-chalcogenides, and Heavy Fermions” Condensed Matter Physics Seminar, Seoul National University, Seoul, South Korea.
45. March 20, 2015  
COACh Workshop at Argonne National Laboratory, Argonne, IL (<https://blogs.anl.gov/wist/>),
46. March 19, 2015  
“Detecting electron nematicity in Fe pnictides and chalcogenides with point contact spectroscopy: A new way to detect non-Fermi liquid behavior” Condensed Matter Physics Seminar, University of Illinois at Chicago, Chicago, IL.
47. March 18, 2015  
“High-Temperature Superconductivity: Taming Serendipity” General Physics Colloquium, University of Illinois at Chicago, Chicago, IL.
48. March 9, 2014  
“High-Temperature Superconductivity: Taming Serendipity” General Physics Colloquium, Oberlin College, Oberlin, OH.
49. March 5, 2015  
“Publishing in Peer Reviewed Journals: Journal mechanics and guidance to authors” Special Symposium on Why Peer Review, March Meeting of the American Physical Society, March 1-6, 2014, San Antonio, TX
50. February 28, 2015  
“Publishing in Peer-Reviewed Journals” at the US Department of State US-China Young Physicists Forum (YPF), February 28 – March 1, 2015, San Antonio, TX.
51. December 16, 2014  
“Future Prospects of Unconventional Superconductivity” Panel at the Unconventional Superconductivity and Launch Symposium for the Rice Center for Quantum Materials (RCQM), December 15-16, 2014, Rice University, Houston, TX.
52. December 16, 2014  
“Detection of Electronic Nematicity in Fe Pnictides and Chalcogenides” at the Unconventional Superconductivity and Launch Symposium for the Rice Center for Quantum Materials (RCQM), December 15-16, 2014, Rice University, Houston, TX.
53. December 11, 2014  
“High-Temperature Superconductivity: Taming Serendipity” General Physics Colloquium Iowa State University, Ames, IA.
54. November 9, 2014  
“Publishing in Peer-Reviewed Journals” at the Junior Research Symposium, Annual Fall Workshop of the Center for Emergent Superconductivity, November 9 – 11, 2014, University of Illinois at Urbana-Champaign, Urbana, IL.

55. October 29, 2014  
“Deciphering Electron Matter in Novel Superconductors”, General Physics Colloquium, University of Illinois at Urbana-Champaign, Urbana, IL.
56. October 18, 2014  
“The Next 60 Years of SCES” Panel Chair at the “Workshop of Strongly Correlated Electron Systems at 60 Years, SCES@60” October 17-18, 2014, University of Illinois at Urbana-Champaign, Urbana, IL.
57. September 4-12, 2014  
Two series of COACH Lectures / Workshops including “Proposal Writing Workshop” and “Publishing in Peer-Reviewed Journals” in New Delhi and Bangalore, India.
58. August 28, 2014  
“High-Temperature Superconductivity: Taming Serendipity” General Physics Colloquium, Purdue University, West Lafayette, IN.
59. August 18, 2014  
“Electronic Matter in Unconventional SCs: A Key to Predictive Design?” Representing the Center for Emergent Superconductivity at the AFOSR Superconductivity Program Review, August 18, Arlington, VA,
60. August 12 2014  
“Detection of Non-Fermi Liquid Behavior with Point Contact Spectroscopy”, Half-plenary at the 27<sup>th</sup> International Meeting on Low-Temperature Physics (LT27), August 6 – 13, Buenos Aires, Argentina.
61. July 28 2014  
“Detection of Electronic Nematicity in Fe Pnictides and Chalcogenides”, SuperStripes, 2014, July 25 – July 30, Ettore Majorana Center, Erice, Sicily, Italy.
62. July 11, 2014  
“Detection of Electron Matter in Strongly Correlated Electron Systems with Point Contact Spectroscopy”, The 2014 International Conference on Strongly Electron Correlated Systems (SCES2014), July 7 – 11, 2014, Grenoble, FR.
63. June 24, 2014  
“Deciphering Electron Matter in Novel Superconductors” Seminar, Nanoscience & Nanotechnology Institute, National University of Singapore, The Republic of Singapore.
64. June 20, 2014  
COACH Lectures / Workshops: “Proposal Writing Workshop” and “Publishing in Peer-Reviewed Journals” at the Indonesian-American Kavli Frontiers in Science Meeting, 19-25 June 2014, Medan, Sumatra, Indonesia.
65. May 13, 2014  
“Detection of Electronic Nematicity in Fe Pnictides and Chalcogenides”, International Conference on Mesoscale Science Frontiers, 13 – 16 May, 2014, Santa Fe, NM.
66. April 29, 2014  
“Orbital Fluctuations in Iron-based superconductors”. The 4<sup>th</sup> International Conference on Superconductivity and Magnetism-ICSM2014, 27 April – 2 May 2014, Antalya, Turkey.
67. April 23, 2014  
“Deciphering Electron Matter in Novel Superconductors”, The 2014 Spring Meeting of the Materials Research Society, April 22 – 25, 2014, San Francisco, CA.

68. April 15, 2014  
 “High-temperature Superconductivity: Taming Serendipity”, UMD Carr Lecture and General Physics Colloquium, University of Maryland, College Park, MD.
69. April 14, 2014  
 “Detecting Strong Electron Correlations with Point Contact Spectroscopy: Electron matter in Fe – pnictides, -chalcogenides, and heavy fermions”, Condensed Matter Physics Seminar and part of the UMD Carr Lectureship, University of Maryland, College Park, MD.
70. April 3, 2014  
 “High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Montana Tech, Butte, MT.
71. March 27, 2014  
 Discussion leader at Emergence of new exotic states at interfaces with superconductors, Theo Murphy International Scientific meeting, March 27 – 28, 2014, The Royal Society at Chicheley Hall, Buckinghamshire, UK.
72. March 26, 2014  
 “Deciphering Electron Matter in Novel Superconductors” Royal Holloway, University of London, Engham, Surrey, UK.
73. March 18, 2014  
 “High-Temperature Superconductivity: Taming Serendipity”, STEM Lecture celebrating National Women’s Month, Georgia Perimeter College, Decatur, GA.
74. March 5, 2014  
 “Deciphering Electron Matter in Novel Superconductors”, Invited talk at the Kavli Plenary Symposium on Many Electron Physics at the March Meeting of the American Physical Society, March 3 – 7, 2014, Denver, CO.
75. January 6-9, 2014  
 “Proposal Writing Workshop” and “Publishing in Peer-Reviewed Journals”, “Science Ethics” and more; series of COACH Workshops, 6 -9 January 2015, Bangkok, Thailand
76. October 21 2013  
 “ICAM’s Global Education, Outreach, and Engagement Initiatives”, GSEE/Kyoto Summit, 20 – 23 October 2013, Kyoto, Japan. (GSEE = Global Partnership for Promoting Science Education through Engagement).
77. October 15, 2013  
 “Hybridization Gap in Heavy Fermions.” Sino-German Bilateral Workshop on Kondo and Mott Physics in Correlated Electron Matter, October 15 – 18, Hangzhou, China.
78. August 7 and 9, 2013  
 Lecturer (2 Lectures) at the International Summer School on Superconductivity – Theory, Experiments, and Phenomena (STEP – 2013), August 5 – 17, 2013, Cargèse, Corsica, FR..
79. August 2, 2013  
 “Panel: Making common cause with scientists in other fields”, Division of Particle Physics / CSS2013; <http://www.hep.umn.edu/css2013/>, 29 July – 6 August 2013, University of Minnesota, Minneapolis, MN
80. June 23, 2013  
 COACH Lectures / Workshops: “Proposal Writing Workshop” and “Publishing in Peer-Reviewed

- Journals” at the Third Indonesian-American Kavli Frontiers in Science Meeting, 23 – 17 June 2013, Nusa Dua, Bali, Indonesia.
81. June 4, 2013  
“Detection of Orbital Fluctuations in Fe pnictides and Chalcogenides with Quasiparticle Scattering Spectroscopy”, Physics Seminar, Brookhaven National Laboratory, Upton, NY.
  82. May 28, 2013  
“Detection of Electron Nematicity in Fe Pnictides and Chalcogenides with Point Contact Spectroscopy”, 14<sup>th</sup> International Workshop on Vortex Matter in Superconductors, May 21 – 27, Nanjing, China (<http://www.vortex2013.org/> ).
  83. May 24 , 2013  
“Quasiparticle Scattering Spectroscopy in Heavy Fermions: Order Parameter Symmetry, Hybridization Gap, and Fano Resonance”, Scientific Seminar, Zhongshan Forum, Nanjing University, Nanjing, China
  84. May 14, 2013  
“Detection of the Hybridization Gap and Fano Resonance in Heavy Fermions with Quasiparticle Scattering Spectroscopy,” and Speaker and Discussion Leader of the Heavy Fermion Session, Gordon Research Conference on Superconductivity, May 12 – 17, Les Diableries, Switzerland.
  85. May 7, 2013  
“Metallic and Oxide Superlattices: Towards Understanding and Designing High-Temperature Superconductors”, Superlattices, May 6 – 8, 2013, Charlotte, NC.
  86. May 4, 2013  
“Education for Life and Work: Developing Transferable Knowledge and Skills for the 21<sup>st</sup> Century”, Forum at National Taiwan University, Taipei, Taiwan.
  87. May 2, 2013  
“Education for Life and Work: Developing Transferable Knowledge and Skills for the 21<sup>st</sup> Century”. Forum at National Dong Hwa University, Shoufeng, Hualien, Taiwan
  88. April 20, 2013  
“Detecting Strong Electron Correlations with Quasiparticle Scattering Spectroscopy: Electron Matter in Fe-pnictides, Fe-chalcogenides, and Heavy Fermions” ICAM-I<sup>2</sup>CAM Frontiers in Quantum Matter Workshop, April 20 – 21, Rio de Janeiro, Brazil.
  89. March 22, 2013  
“Kondo, Fano, ... Detecting Electron Matter”, Symposium in honor of Myrium Sarachik on her 80<sup>th</sup> Birthday, City College, New York, NY.
  90. March 6 – 9, 2013  
Assorted lectures on Energy Materials (mostly superconductors), writing proposals, and networking at the COAch Workshop (<http://coach.uoregon.edu/coach/>), March 6 – 9. 2013, Casablanca, Morocco.
  91. February 12, 2013  
“High-temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, University of Pittsburgh, Pittsburgh, PA.
  92. February 11, 2013  
“Detecting Orbital Ordering and Other States of Electron Matter with Quasiparticle Scattering Spectroscopy”, Condensed Matter Physics Seminar, University of Pittsburgh, Pittsburgh, PA.



93. February 4, 2013  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, California State University Long Beach, Long Beach, CA.
94. January 31, 2013  
“Detecting Electron Matter Fe-pnictides and chalcogenides with Quasiparticle Scattering Spectroscopy”, Condensed Matter Physics Seminar, Department of Physics, University of California at Irvine, Irvine, CA.
95. January 23, 2013  
“Detecting Electron Matter Fe-pnictides and chalcogenides with Quasiparticle Scattering Spectroscopy”, AFOSR MURI-China Workshop, January 22 – 25, 2013, Hong Kong.
96. January 21, 2013  
“Guiding Platforms for the Search for New and Practical High Temperature Superconductors at the Center for Emergent Superconductivity, and How Point Contact Spectroscopy Helps”, Winter School for High-Temperature Superconductivity, January 20 – 21, 2013, Hong Kong
97. January 19, 2013  
“Vision Is Vital, But Experiment Is Essential: Andreev Bound States, Broken Time Reversal Symmetry, and Electron Matter”, Plenary talk at the 5<sup>th</sup> Annual Meeting on Undergraduate Women in Physics, Midwest Section, January 18 – 21, Urbana, IL
98. December 20, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Division of Materials Research, Argonne National Laboratories, Argonne, IL.
99. November 29, 2012  
“Detecting Strong Electron Correlations with Quasiparticle Scattering Spectroscopy: Electron Matter in Fe-pnictides, Fe-chalcogenides, and Heavy Fermions”, Condensed Matter Physics Seminar, University of Maryland, College Park, MD.
100. November 8, 2012  
“Superconductivity As an Energy Carrier”, Dasan Conference on Superconductivity, November 7 – 9, 2012, Jeju Island, Korea.
101. October 10, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Eidgenössische Technische Hochschule (ETH), Zürich, Switzerland.
102. October 11, 2012  
“Detecting Electronic Order with Quasiparticle Scattering Spectroscopy: Hybridization Gap and Fano Resonance in a Heavy Fermion and Orbital Ordering in Fe-based Superconductors”, Condensed Matter Physics Seminar, Eidgenössische Technische Hochschule (ETH), Zürich, Switzerland.
103. August ~28, 2012  
“Detection of the Hybridization Gap and Fano Resonance in the Kondo Lattice  $URu_2Si_2$ ”, International Conference on Quantum Criticality and Novel Phases, August 26 – 29, 2012, Dresden, Germany.
104. July 19, 2012  
“Why Electron Matter Matters”, Lecture to the Summer REU students at the University of Illinois at Urbana-Champaign, Urbana, IL.

105. July 15, 2012  
“Detection of Novel Electron Order in Heavy Fermions and Fe Chalcogenides and Pnictides with Point Contact Spectroscopy”, Physics Summer School for Outstanding Students in Basic Sciences, Zhejiang University, Hangzhou, China.
106. July 15, 2012  
“Planar Tunneling and Andreev Reflection Spectroscopies: Powerful probes of broken symmetries and the Superconducting order parameter”, Physics Summer School for Outstanding Students in Basic Sciences, Zhejiang University, Hangzhou, China.
107. July 15, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, Public Lecture for the Physics Summer School for Outstanding Students in Basic Sciences, Zhejiang University, Hangzhou, China.
108. July 12, 2012  
“Detection of Orbital ordering Fluctuations in the Fe-based Superconductors by Quasiparticle Scattering Spectroscopy”, International Conference on Magnetism, ICM 2012, July 8 – 13, Bexco, Busan, Korea.
109. June 4, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, University of California at Davis, Davis, CA.
110. May 15, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, Brazilian Condensed Matter Physics Annual Meeting, May 14 – 18, 2012, Aguas de Lindoia, Brazil.
111. May 11, 2012  
“What Should Be Our Model for Regional GSEE Consortia?” Meeting for The Global Partnership on Science Education through Engagement, May 10 – 12, 2012, University of Chicago, Chicago, IL.
112. April 12, 2012  
“Detection of Orbital Fluctuations above the Structural Transition in the Iron Pnictides and Chalcogenides by Quasiparticle Scattering Spectroscopy”, Condensed Matter Physics Seminar, Imperial College, London, UK.
113. April 11, 2012  
“Detecting Electronic Order with Quasiparticle Scattering Spectroscopy: Hybridization Gap and Fano Resonance in a Heavy Fermion and Orbital Ordering in Fe-based Superconductors”, Condensed Matter Physics Seminar, Rice University, Houston, TX.
114. April 10, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Rice University, Houston TX
115. April 5, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, Optical Sciences Colloquium, University of Arizona, Tucson, AZ
116. March 20, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Texas A&M University, College Station, TX.
117. March 19, 2012  
“And, I am a Materials Girl, and this is a Materials World” (with apologies to Madonna), ADVANCE – STEM Lecture, Texas A&M University, College Station, TX.

118. March 14, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, City College of New York, NY, NY.
119. March 14, 2012  
“Detection of Orbital Fluctuations above the Structural Transition in the Iron Pnictides and Chalcogenides by Quasiparticle Scattering Spectroscopy”, Condensed Matter Physics Seminar, City College of New York, NY, NY.
120. February 28, 2012  
“Towards the Design of New High-Temperature Superconductors for Renewable Energy”, Division of Materials Physics sponsored Lunch with the Experts, March Meeting of the American Physical Society, February 27 – March 1, 2012, Boston, MA.
121. Feb 13, 2011  
“Detection of Orbital Fluctuations above the Structural Transition in the Iron Pnictides and Chalcogenides by Quasiparticle Scattering Spectroscopy”, Physics / Electrical Engineering / Chemistry combined seminar, Boston University, Boston, MA.
122. January 15, 2012  
“High-Temperature Superconductivity: Taming Serendipity”, 5<sup>th</sup> Annual Midwest Women in Physics Conference, January 14 – 16, 2012, Case Western Reserve University, Cleveland, OH.
123. December 13, 2011  
“Superconducting Materials Research at the Center for Emergent Superconductivity”, China-US Superconductivity Workshop, December 12 – 15, 2011, Santa Barbara, CA.
124. December 9, 2011  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, University of Connecticut, Storrs, CN.
125. November 18, 2011  
“Detecting Strong Correlations with Quasiparticle Scattering Spectroscopy”, Condensed Matter Physics Seminar, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
126. November 12, 2011  
“Transforming Science, Policy, and the Power Grid with High Temperatures Superconductivity”, Saturday Physics Honors Program (for high-school students in the area), Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
127. December 5, 2011  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Northeastern University, Boston, MA.
128. November 4, 2011  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Boston University, Boston, MA.
129. October 21, 2011  
“New Superconducting Materials Research – International Pursuits with Ivan”, Physics at the Nanoscale, Ivan Schuller Festschrift, October 18 – 21, 2011, Madrid, Spain.
130. October 4, 2011  
“Point Contact Spectroscopy in Strongly-Correlated Electron Materials”, Condensed Matter Physics Seminar, Temple University, Philadelphia, PA.

131. October 3, 2011  
“High-Temperature Superconductivity: Taming Serendipity”, General Physics Colloquium, Temple University, Philadelphia, PA.
132. September 2, 2011  
“Superconductivity as an Energy Carrier”, Plenary Talk at the International Conference on Strongly Correlated Electron Systems (SCES – 2011), August 29 – September 3, 2011, Cambridge, UK.
133. August 1, 2011  
“Direct Measurement of the Fano Resonance and Hybridization Gap in URu<sub>2</sub>Si<sub>2</sub> with Quasiparticle Scattering Spectroscopy”, 26<sup>th</sup> International Conference on Low Temperature Physics (LT26), August 10 – 17, 2011, Beijing, China
134. August 16, 2011  
“Point Contact Spectroscopy in Fe-Pnictides and Fe-Chalcogenides: Detecting Hidden Order”, 26<sup>th</sup> International Conference on Low Temperature Physics (LT26), August 10 – 17, 2011, Beijing, China (given by student Hamood Arham).
135. July 22, 2011  
“Detecting ‘Normal-State’ Electronic Order with Point Contact Spectroscopy: Heavy-fermions and Underdoped Iron-based Superconductors”, Workshop on A New Century of Superconductivity: Iron Pnictides and Beyond, Aspen Center for Physics, Aspen, CO.
136. July 10, 2011  
“Advances in Tunneling and Andreev Reflections in Novel Superconductors”. Plenary Talk at the 7<sup>th</sup> International Conference on Stripes and High T<sub>c</sub> Superconductivity “STRIPES11”, July 10 – 16, 2011, Sapienza University of Rome, Rome Italy.
137. June 29, 2011  
“Design of New Superconducting Materials, and Point Contact Spectroscopy as a Probe of Strong Electron Correlations”, Plenary Lecture at the “1<sup>st</sup> Centennial of Superconductivity: Trends on Nanoscale Superconductivity and Magnetism” (1stCSW2011), International Workshop, June 29 – July 1, 2011, Cali, Colombia.
138. June 15, 2011  
“Future Prospects in Superconductivity Materials Research”, Lecture to REU and Summer Undergraduate Research Students, University of Illinois at Urbana-Champaign, Urbana, IL 61801.
139. June 2, 2011  
“High-Temperature Superconductivity: Building from Serendipity”, General Physics Colloquium, University of California at Irvine, Irvine, CA.
140. May 30, 2011  
“Research Opportunities in New Superconducting Materials”, Plenary talk at the annual meeting of The Advanced Materials Network (RQMP), Montréal, Canada.
141. May 16, 2011  
“Detection of Orbital Ordering and Nematicity in Fe-based Superconductors by Point Contact Spectroscopy”, Institute for Condensed Matter Theory (ICMT) on Disordered Materials, May 15 – 19, 2011, University of Illinois at Urbana-Champaign, Urbana, IL.
142. May 5, 2011  
“High-Temperature Superconductivity: From Broken Symmetries to the Power Grid”, General Physics Colloquium, University of California at Santa Cruz, Santa Cruz, CA.

143. April 11, 2011  
"Observation of the Hybridization Gap and Fano Resonance in the Heavy-fermion Superconductor  $URu_2Si_2$ ", The 2011 Hangzhou Workshop on Quantum Matter – Unconventional Superconductivity and Electron Correlations, April 10-13, 2011, Zhejiang University, Hangzhou, China.
144. April 8, 2011  
"Research Opportunities in New Superconducting Materials", Annual meeting of the Institute for Complex and Adaptive Matter (ICAM) special session celebrating the 100<sup>th</sup> birthday of superconductivity, Hangzhou, China
145. April 6, 2011  
"Measurement of the Hybridization Gap in the Kondo Lattice  $URu_2Si_2$ ". Workshop for the 100<sup>th</sup> Anniversary of Superconductivity: Hot Topics and Future Directions, April 4 – 8, 2011, Lorentz center, Leiden, NL.
146. March 23, 2011  
"Research Opportunities in New Superconducting Materials", in the Superconductivity Centennial: Future Research Opportunities, March Meeting of the American Physical Society, March 21-25, Dallas, TX.
147. February 19, 2011  
"The Search for New Superconductors", with Zachary Fisk, Annual Meeting of the American Association for the Advancement of Science, February 17-21, Washington, DC.
148. January 31, 2011  
"High-Temperature Superconductivity: Emergent Phases, Broken Symmetries, and the Power Grid", General Colloquium, Department of Physics, North Carolina State University, Raleigh, NC,
149. January 16, 2011  
"Emergent Behavior in Life and Lab: Building on internal competitions", Plenary talk, 4<sup>th</sup> Annual Midwest Conference for Undergraduate Women in Physics, January 14 – 16, Purdue University, Purdue, IN.
150. November 13, 2010  
"CES Outreach: Report interaction with AFOSR s and the Chinese Academy of Sciences; The International ad-hoc group to search for new high-temperature superconductors; The status of the CES-directed International Conference M<sup>2</sup>S 2012; and The Status of the CES-edited Reports on Progress in Physics – Institute of Physics (RoPP-IoP, UK) Special Issue on Fe-based superconductors" CES-EFRC Fall Workshop, November 11-13, 2010, Stony Brook, NY.
151. November 12, 2010  
"Point Contact Spectroscopy on Fe-Based and New Superconductors", CES-EFRC Fall Workshop, November 11-13, 2010, Stony Brook, NY.
152. November 12, 2010  
"Innovative Avenues for the Design of New Families of High-Temperature Superconductors / Materials Overview", CES-EFRC Fall Workshop, November 11-13, 2010, Stony Brook, NY.
153. November 4, 2010  
"High-Temperature Superconductivity: Emergent Phases and the Power Grid", Colloquium, Department of Physics, University of Chicago, Chicago, IL.
154. October 22, 2010  
"Point Contact Spectroscopy of Strongly-Correlated Electron Materials: Andreev Reflection,

- Multiband Superconductivity, and Magnetism”, Solid State Physics Seminar, Department of Physics, California Institute of Technology, Pasadena, CA.
155. October 21, 2010  
“High-Temperature Superconductivity: Emergent Phases, Broken Symmetries, and the Power Grid”, General Colloquium, Department of Physics, California Institute of Technology, Pasadena, CA.
  156. September 28, 2010  
“Recent Results in the CES-EFRC: Materials, Mechanisms, and Critical Currents”, US/China Workshop on Novel Superconductors, September 27-29, 2010 Beijing China.
  157. September 15, 2010  
“Point Contact Spectroscopy of Strongly Correlated Electron Materials: Andreev Reflection, Multiband Superconductivity, and Magnetism”, T<sub>c</sub>SUH Special Seminar, University of Texas at Houston, Houston, TX.
  158. September 14, 2010  
“High-Temperature Superconductors: From Broken Symmetries to the Power Grid”, General Colloquium, Department of Physics and the Texas Center for Superconductivity, University of Texas at Houston, Houston, TX.
  159. August 10, 2010  
“The Search for Innovative Avenues Towards Developing New Families of Superconducting Materials: Report from US Centers”, Trieste Miniworkshop on Strongly Correlated Matter, August 2-13, 2010, ICTP, Trieste, Italy.
  160. August 7, 2010  
“Status of the CES-EFRC: Materials, Mechanisms, and Critical Currents”, AFOSR-MURI Review, Washington, DC.
  161. July 7, 2010  
“High-Temperature Superconductors: From Broken Symmetries to the Power Grid”, Talk to REU and other undergraduate students, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
  162. June 3, 2010  
“Point Contact Spectroscopy: Detecting Superconducting and Magnetic Phase Correlations”, Special Seminar, Department of Physics, Imperial College, London, UK.
  163. May 20, 2010  
“Point Contact Spectroscopy of Strongly-Correlated Electron Materials: Andreev Reflection, Multiband Superconductivity, and Magnetism”, Condensed Matter Physics Seminar, Northwestern University, Evanston, IL.
  164. March 20, 2010  
“High-Temperatures Superconductivity and Energy Research”, General Colloquium, Department of Physics, University of Texas at Arlington, Arlington, TX.
  165. March 17, 2010  
“Superconductivity and Energy Research”, Division of Materials Physics sponsored Lunch with the Experts, March Meeting of the American Physical Society, March 15 – 19, 2010, Portland, OR.
  166. March 10, 2010  
“Point Contact Spectroscopy of Strongly-Correlated Electron Systems”, Physics Colloquium, Trinity College and Cavendish Laboratory, Cambridge University, Cambridge, UK.

167. September 30, 2009  
“High-Temperature Superconductors: From Broken Symmetries to the Power Grid”, Public Lecture, Center for Nano and Molecular Science, The University of Texas at Austin, Austin, TX.
168. September 8, 2009  
“High-Temperature Superconductors: From Broken Symmetries to the Power Grid”, General Physics Colloquium, University of York, York, UK.
169. August 17, 2009  
“Andreev Reflection in the Heavy Fermion Superconductor CeCoIn<sub>5</sub>”, Kavli Institute for Theoretical Physics (KITP), Santa Barbara, CA.
170. August 10 and 12, 2009  
Lecturer (Two Lectures: “Tunneling in High-Temperature Superconductors” and “Point Contact Andreev Reflection Spectroscopy in Heavy Fermion Superconductors”), at the “Summer School on Novel Superconductors”, sponsored by the International Center for Materials Research (ICMR), University of California at Santa Barbara and the Graduate School of Excellence in Materials Science, Mainz, August 2 -15, 2009, Santa Barbara, CA.
171. July 14, 2009  
“Overview of Fe-Pnictide and Related Superconductors”, I2CAM Workshop on Emergent Quantum Phenomena from the Nano to the Macro World”, July 6-18, 2009, Cargèse, FR.
172. April 14, 2009  
“Superconductivity and the Power Grid”, Spring Diversity Recruitment Lecture, University of Illinois and Urbana-Champaign.
173. March 11, 2009  
“Andreev Reflection in Heavy Fermions”, Colloquium, Department of Physics, University of Michigan, Ann Arbor, MI.
174. March 10, 2009  
“High-Temperature Superconductivity: From Broken Symmetries to the Power Grid”, Public Lecture, University of Michigan, Ann Arbor, MI.
175. February 10, 2009  
“Andreev Reflection in Heavy Fermion Superconductors: Focus on CeCoIn<sub>5</sub>”, Physics and Applied Physics Departments' Student Hosted Colloquium, Stanford University, Stanford, CA
176. January 22, 2009  
“High-Temperature Superconductors: Playgrounds for Broken Symmetries”, Plenary Talk, Physics@FOM Veldhoven 2009, January 21 -23, 2009, Eindhoven, the Netherlands.
177. January 19, 2009  
“Tunneling and Andreev Reflection Unconventional Superconductors”, Masterclass at Physics@FOM, Veldhoven, 2009, January 21 -23, 2009, Eindhoven, The Netherlands.
178. January 12, 2009  
“New Superconductors: Fe-Pnictide and Related”, ICAM/I2CAM Annual Meeting, January 11-13, Cambridge, UK
179. November 8, 2008  
“Transforming Science, Policy, and the Power Grid with High Temperature Superconductivity”, Saturday Physics Honors Program (for high-school students in the area), Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.

180. November 6, 2008  
"High-Temperature Superconductors: From Broken Symmetries to the Power Grid", Chancellor's Center for Advanced Study Lecture (evening public lecture), University of Illinois at Urbana-Champaign, Urbana, IL
181. August 19, 2008  
"Point Contact Andreev Reflection Tunneling Spectroscopy (PCARTS) of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>", The International Conference on Strongly Correlated Electron Systems, August 17-22, 2008, Búzios, Brazil.
182. August 11, 2008  
"Point Contact Andreev Reflection Spectroscopy of the Heavy-Fermion Superconductor CeCoIn<sub>5</sub>" (given by Wan Kyu Park) The 25<sup>th</sup> International Conference on Low-Temperature Physics (LT-25), August 6-13, 2008, Amsterdam, NL
183. August 8, 2008  
"Point-Contact Spectroscopy of Fe-based Superconductors FeSe and (Ba,K)Fe<sub>2</sub>As<sub>2</sub>" (given by Wan Kyu Park) at the Special Romp Session on the Fe-Pnictide Superconductors, The 25<sup>th</sup> International Conference on Low-Temperature Physics, August 6-13, Amsterdam, NL.
184. May 27, 2008  
"Point Contact Andreev Reflection Tunneling Spectroscopy (PCARTS) of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>", Quantum Physics Seminar, Cavendish Laboratory, Cambridge University, Cambridge, UK.
185. May 13, 2008  
"Transforming Science, Policy, and the Power Grid with High Temperature Superconductivity", Plenary Talk, Conference on Complex Systems, May 12 - 15, 2008, University of Illinois at Urbana-Champaign, Urbana, IL, USA.
186. March 13, 2008  
"She's a Physicist!?", Forum on International Physics, March Meeting of the American Physical Society, March 9-13, 2008, New Orleans, LA.
187. March 12, 2008  
"Transforming Science, Policy, and the Power Grid with High Temperature Superconductivity", Lunch with the Experts, March Meeting of the American Physical Society, March 9-13, 2008, New Orleans, LA.
188. March 3, 2008  
"Point Contact Andreev Reflection Tunneling Spectroscopy (PCARTS) of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>", Condensed Matter Physics Seminar, Department of Physics, University of California at Berkeley, Berkeley, CA.
189. February 26, 2008  
Panelist, "Do's and Don'ts and Lessons Learned", Workshop on Grant Writing: Steps and Strategies for Successful Proposals, sponsored by the National Center for Supercomputing Applications (NCSA), Beckmann Institute, University of Illinois at Urbana-Champaign
190. February 18, 2008  
"How Nuclear Weapons Work", General Lecture for the Dial Club, a Faculty Club with members from across campus at the University of Illinois at Urbana-Champaign.



191. December 3, 2007  
 “High-Temperature Superconductors: Playgrounds for Broken Symmetries”, Colloquium, Center for Integrated Nanotechnologies, University of Illinois at Urbana-Champaign, Urbana, IL.
192. September 10, 2007  
 “Andreev Reflection at Novel Superconducting Interfaces”, Gordon Conference on Superconductivity, September 9-14, 2007 Les Diablerets, Switzerland.
193. August 4, 2007  
 “Tunneling and Point Contact Andreev Reflection Spectroscopy of Pure and Cd-doped CeCoIn<sub>5</sub>”, ICAM/I2CAM Workshop: 1-1-5 Materials: The Rosetta Stone for the Kondo Lattice, August 3-5, 2007, Aspen, CO.
194. May 18, 2007  
 “Planar Quasiparticle Tunneling and Point Contact Andreev Reflection Spectroscopies for Measurement of Broken Symmetries in Unconventional Superconductors”, Department of Physics, Peking University, Beijing, China.
195. May 17, 2007  
 “Andreev Reflection Spectroscopy of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>: Detecting Order Parameter Symmetry and Competing Phases”, Physics Seminar, Chinese Academy of Sciences, Beijing, China.
196. May 17, 2007  
 “High-Temperature Superconductors: Playgrounds for Broken Symmetries”, Zhong Guan Cun Forum on Condensed Matter Physics, Chinese Academy of Sciences, Beijing, China.
197. May 14, 2007  
 “Point Contact Andreev Reflection Spectroscopy of Heavy Fermion Systems”, The International Conference on Strongly Correlated Electron Systems (SCES-07). May 13-18, 2007 Houston, TX
198. May 13, 2007  
 “High Temperature Superconductors, from Broken Symmetries to Cell Phones”, Public lectures to the Houston media with Paul Chu and Frank Steglich, just before the International Conference on Strongly Correlated Electron Systems (SCES-07). May 13-18, 2007 Houston, TX
199. April 7, 2007  
 “High Temperature Superconductors: Playgrounds for Broken Symmetries”, Colloquium, Department of Physics, Tufts University, Medford, MA.
200. April 6, 2007  
 “High Temperature Superconductors: From Broken Symmetries to Cell Phones”, Kathryn McCarthy Public Lecture, Tufts University, Medford, MA.
201. March 12-14, 2007  
 Lecturer (two lectures) at the I2CAM/FAPERJ Spring School on Emergent Matter, “New Phenomena in Highly Correlated Quantum Matter”, 11-17 March, 2007, Rio de Janeiro, Brazil.
202. March 5, 2007  
 “High-T<sub>c</sub> at Bellcore”, Special session commemorating the 20<sup>th</sup> anniversary of the discovery of high-temperature superconductivity and the 20<sup>th</sup> anniversary of the March Meeting “Woodstock” which occurred in March of 1987, March Meeting of the American Physical Society, March 4-9, 2007, Denver, CO.

203. February 5, 2007  
"Unconventional Superconductors: Measuring Broken Symmetries", Colloquium, Department of Physics, North Carolina State University, Raleigh, NC.
204. January 23, 2007  
"High Temperature Superconductors: Playgrounds for Broken Symmetries", CMS (condensed matter sciences) Distinguished Lecturer, Brookhaven National Laboratory, Upton NY.
205. November 16, 2006  
"High Temperature Superconductors: Playgrounds for Broken Symmetries", Physics Colloquium, Michigan State University, East Lansing, MI.
206. November 15, 2006  
"Andreev Reflection Spectroscopy of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>: Detecting Order Parameter Symmetry and Competing Phases", Condensed Matter Physics Seminar, Michigan State University, East Lansing, MI.
207. November 11, 2006  
"Asymmetry in Point Contact Conductance Spectra: Au/CeCoIn<sub>5</sub>", ICAM Annual Meeting, November 9-12, 2006, Santa Fe, NM
208. November 9, 2006  
"Planar Tunneling and Point Contact Spectroscopy of Unconventional Superconductors", Physics Colloquium, Penn State University, State College, PA.
209. September 20, 2006  
"Andreev Reflection Spectroscopy of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>: Detecting Order Parameter Symmetry and Competing Phase", Cavendish Laboratory and Trinity College, Cambridge University, Cambridge, UK.
210. August 29, 2006  
"Andreev Reflection Spectroscopy of the Pure and Cd-doped Heavy Fermion Superconductor CeCoIn<sub>5</sub>: Detecting Order Parameter Symmetry and Competing Phases", International Workshop on Mesoscopic Superconductivity and Magnetism, August 28 – September 1, 2006, Chicago, IL.
211. July 3, 2006  
"Point Contact Spectroscopy of Pure and Cd-doped CeCoIn<sub>5</sub>: Andreev Reflection at the Heavy-Fermion Superconductor Interface and Competing Phases", Tenth Franco-American Conference on Complex Oxides, July 3-4, 2006, Caen, FR.
212. June 1-2, 2006  
Technical, General and Public lectures plus classroom teaching (3-5 presentations) given as a Phi-Beta-Kappa Visiting Scholar, University of California at Irvine, Irvine, CA.
213. May 30, 2006  
"Andreev Reflection at the Unconventional Superconductor / Normal-Metal Interface: Point Contact Spectroscopy of the Heavy Fermion Superconductor CeCoIn<sub>5</sub>", Seminar, Materials Science Division, Center for Nanoscale Applications, Argonne National Laboratory, Argonne, IL.
214. May 21-22, 2006  
Technical, General and Public lectures plus classroom teaching (3-5 presentations) lectures given as a Phi-Beta-Kappa Visiting Scholar, Lawrence University, Appleton, WI.
215. May 18, 2006  
"High-Temperature Superconductors: From Broken Symmetries to Cell Phones", Colloquium, Department of Physics, Trinity College, University of Dublin, Dublin, Ireland.

216. May 8, 2006  
 “The Effect of Physical Structure on Electronic Structure in Conventional and Unconventional Superconductors”, DoE-BES Workshop on Basic Research Needs for Superconductivity, May 8-11, 2006, Washington, DC. Also was Sub-Panel Chair of “Thermodynamics and Magnetism”
217. April 24, 2006  
 “Conversion Under the Influence (of Electrons in Superconductors), Dial Club Guest Night Public Lecture, University of Illinois at Urbana-Champaign.
218. April 3-4, 2006  
 Technical, General and Public lectures plus classroom teaching (3-5 presentations) given as a Phi-Beta-Kappa Visiting Scholar, Randolph-Macon University, Lynchburg, VA.
219. March 20-21, 2006  
 Technical, General and Public lectures plus classroom teaching (3-5 presentations) given as a Phi-Beta-Kappa Visiting Scholar, Florida State University, Tallahassee, FL.
220. March 6-7, 2006  
 Technical, General and Public lectures plus classroom teaching (3-5 presentations) lectures given as a Phi-Beta-Kappa Visiting Scholar, University of Oklahoma, Norman, OK.
221. February 20-22, 2006  
 Technical, General and Public lectures plus classroom teaching (3-5 presentations) given as a Phi-Beta-Kappa Visiting Scholar, Wittenberg University, Springfield, OH.
222. February 9-10, 2006  
 Technical, General and Public lectures plus classroom teaching (3-5 presentations) given as a Phi-Beta Kappa Visiting Scholar, Davidson College, Davidson, North Carolina
223. January 3, 2006  
 “High-Temperature Superconductors: Playgrounds for Broken Symmetries”, General Physics Colloquium, National Taiwan University, Taipei, Taiwan.
224. January 1, 2006  
 “High-Temperature Superconductivity: From Broken Symmetries to Cell Phones”, International Physics Young Ambassador Symposium, December 31, 2005 - January 4, 2006, Taipei, Taiwan.
225. November 22, 2005  
 “Andreev Reflection at the Normal-Metal / Heavy-Fermion Superconductor Interface: Point Contact Spectroscopy of CeCoIn<sub>5</sub>”, Condensed Matter Physics Seminar m as Phi-Beta-Kappa Visiting Scholar, University of Notre Dame, Notre Dame, IN.
226. November 22, 2005  
 “High-Temperature Superconductors: From Broken Symmetries to Cell Phones”, Public Lecture as a Phi-Beta Kappa Visiting Scholar, University of Notre Dame, Notre Dame, IN.
227. November 21, 2005  
 “Unconventional Superconductors: Playgrounds for Broken Symmetries”, Physics Colloquium as Phi-Beta-Kappa Visiting Scholar, University of Notre Dame, Notre Dame, IN.
228. November 12, 2005  
 “Andreev Reflection at the Normal-Metal / Heavy-Fermion Superconductor Interface: Point Contact Spectroscopy of CeCoIn<sub>5</sub>”, ICAM Annual Meeting, November 8-13, 2005, Santa Fe, NM.
229. October 20, 2005  
 “Future Directions in the Physics of Strongly Correlated Electron Systems”. Institute of Physics (IoP), London, UK.

230. October 5, 2005  
 “Unconventional Superconductors: Playgrounds for Broken Symmetries”, Department of Physics  
 1<sup>st</sup> Distinguished Alumnus Lecture, Public Lecture given at the Wexner Center for the Performing  
 Arts, The Ohio State University, Columbus, Ohio.
231. August 13, 2005  
 “Studies of the Zero-Bias Conductance Peak (ZBCP) in Thin-Film Superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Planar  
 Tunnel Junctions: Detection and Modeling of ZBCP Splittings and Non-Splittings”, The 24<sup>th</sup>  
 International Conference on Low Temperature Physics (LT-24), August 10-17, 2005, Orlando, FL.
232. August 2, 2005  
 “Suppressed Andreev Reflection at the Normal-Metal / Heavy-Fermion Superconductor  $\text{CeCoIn}_5$   
 Interface”, Conference on Strongly-Correlated Electron Materials: Physics and Nanoengineering,  
 July 31 - August 4, 2005, San Diego, CA (given by W.K. Park).
233. July 2005  
 “Point Contact Spectroscopy of  $\text{CeCoIn}_5$ : Andreev Reflection Studies of the Normal--Metal /  
 Heavy-Fermion Superconductor Interface”, International Conference on Strongly Correlated  
 Electron Systems, July 26 – 30, Vienna, Austria.
234. June 10, 2005  
 “Andreev Reflection at the  $\text{CeCoIn}_5$  Heavy Fermion Superconductor Interface”, Workshop on The  
 Possibility of Room Temperature Superconductivity & Related Topics, June 10-11, University of  
 Notre Dame, Notre Dame, IN.
235. June 8, 2005  
 “Measuring Broken Symmetries in Unconventional Superconductors with Planar Tunneling and  
 Point Contact Spectroscopies”, REU Lunch-time talk for incoming REU students, Department of  
 Physics, University of Illinois at Urbana, Champaign, Urbana, IL.
236. May 25, 2005  
 “High-Temperature Superconductors: Playgrounds for Broke Symmetries”, Plenary Talk, Second  
 International IUPAP (International Union of Pure and Applied Physicists) Conference on Women in  
 Physics, May 23 – 25, 2005, Rio de Janeiro, Brazil.
237. April 22, 2005  
 “Particle Conversion in Unconventional Superconductors: Tunneling to Andreev Reflection”,  
 Festschrift for Professor David B. Tanner, April 21-23, 2005, Gainesville, FL.
238. March 11, 2005  
 “Detecting Broken Symmetries in High-Temperature Superconductors with Planar Tunneling  
 Spectroscopy”, Colloquium, Department of Physics, Ohio University, Athens, OH.
239. February 20, 2005  
 “High-Temperature Superconductors: Playgrounds for Broken Symmetries”, Plenary Talk in the  
 Session “Frontiers of Physics for the 21<sup>st</sup> Century”, Annual Meeting of the American Association  
 for the Advancement of Science (AAAS), February 17-25, 2005, Washington, DC.
240. December 16, 2004  
 “Point Contact Spectroscopy of the Heavy-Fermion Superconductor  $\text{CeCoIn}_5$ ”, “Eighth Franco-  
 American Workshop on Complex Oxides: “Strongly Correlated Fermions, Functional Materials and  
 Their Interplay”, December 16-17, 2004, ESPCI, Paris, FR.

241. November 12, 2004  
"Point Contact Spectroscopy of the Heavy-Fermion Superconductor CeCoIn<sub>5</sub>", Annual I2CAM (International Institute for Complex and Adaptive Matter), November 11-13, 2004, Santa Fe, NM.
242. September 22, 2004  
"Point Contact Spectroscopy of the Heavy-Fermion Superconductor CeCoIn<sub>5</sub>", Contributed Poster, and Discussion Leader, Gordon Research Conference on Superconductivity, September 19-23, Oxford, UK.
243. August 7, 2004  
"Progress in Unconventional Superconductors: Playgrounds for Broken Symmetries", Frontiers in Condensed Matter (ICAM Symposium), August 5-8, 2004, Snowmass, CO.
244. June 24, 2004  
"High-Temperature Superconductivity: From Broken Symmetries to Cell Phone", Seminaire General, Laboratoire PMC École Polytechnique, Palaiseau, FR.
245. June 21, 2004  
"Detection and Control of Broken Symmetries with Andreev Bound-State Planar Tunneling Spectroscopy", Seminaire, Laboratoire de Physique des Solides, Université Paris Sud, Orsay, FR
246. June 14, 2004  
"High-Temperature Superconductivity: From Broken Symmetries to Cell Phone", Seminaire General, Laboratoire de Physique des Solides, Université Paris Sud, Orsay, FR
247. June 13, 2004  
"Detection and Control of Broken Symmetries with Andreev Bound-State Planar Tunneling Spectroscopy: Part I", Seminaire, Laboratoire de Physique des Solides, Université Paris Sud, Orsay, FR
248. June 2, 2004  
"High-Temperature Superconductors: From Broken Symmetries to Cell Phones", REU presentation, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
249. April 23, 2004  
"Detecting Broken Symmetries in High Temperature Superconductors with Planar Tunneling Spectroscopy", Colloquium, Department of Physics, The Ohio State University, Columbus, OH.
250. March 31, 2004  
"Point Contact Spectroscopy of the Heavy Fermion Superconductor CeCoIn<sub>5</sub>, and Effects of the Tunneling Cone and Atomic Scale Disorder on Planar Tunneling Spectroscopic Measurements of Andreev Bound States in YBCO", T-division, Los Alamos National Laboratory, Los Alamos, NM.
251. March 20, 2004  
"The Art of the Impossible: Balancing Physics and Family". Survival Skills Workshop, sponsored by the Committee on the Status of Women in Physics of the American Physical Society, March Meeting of the American Physical Society, March 20-26, 2004, Montreal, CANADA.
252. December 3, 2003  
"Planar Tunneling Spectroscopy of High-Temperature Superconductors: Detecting Broken Symmetries", Colloquium, Department of Physics, Rice University, Houston, TX.
253. October 2, 2003  
"Planar Tunneling Spectroscopy of High-Temperature Superconductors: Detecting Broken Symmetries", Colloquium, Department of Physics and Astronomy, University of South Carolina, Columbia, SC.

254. September 17, 2003  
"High-Temperature Superconductors: From Broken Symmetries to Cell Phones", Physics Society, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
255. July 1, 2003  
"Andreev Bound State Planar Tunneling Spectroscopy", Department of Physics ESPCI, Paris, FR.
256. June 14, 2003  
"From Phonons and Photons to Electrons and Fermi Surfaces", at Festschrift for Professor Albert J. Sievers, "From DC to Daylight", June 14 – 15, 2003, Ithaca, NY
257. June 4, 2003  
"Characterization, Theory and Modeling across Multiple Length Scales" Center for Integrative Nanotechnologies (ICAM) Executive Board Meeting, Albuquerque, NM.
258. May 22, 2003  
"Detection and Control of Broken Symmetries with Andreev Bound State Planar Tunneling Spectroscopy", M<sup>2</sup>S -RIO : International Conference on the Materials and Mechanisms of Superconductivity, May 25 – 30, Rio de Janeiro, Brazil (contributed)
259. June 11, 2003  
"High-Temperature Superconductors: From Broken Symmetries to Cell Phones", REU presentation, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
260. May 6, 2003  
"High-Temperature Superconductors: From Broken Symmetries to Cell Phones", Dial Club, General Talk for Faculty, Urbana, IL.
261. April 22, 2003  
"Detection and Control of Broken Symmetries with Andreev Bound State Planar Tunneling Spectroscopy", Seminar, Department of Physics, Boston College, Boston, MA.
262. April 21, 2003  
"Detection and Control of Broken Symmetries with Andreev Bound State Planar Tunneling Spectroscopy", Seminar, Department of Physics, Boston University, Boston, MA.
263. April 7, 2003  
"Detection and Control of Broken Symmetries with Andreev Bound State Planar Tunneling Spectroscopy", Seminar, Material Science Division, Argonne National Laboratory, Argonne, IL.
264. January 31, 2003  
"Planar Tunneling Spectroscopy of High-Temperature Superconductors: Andreev Bound States and Broken Symmetries", Condensed Matter Physics Seminar, Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL.
265. November 21, 2002  
"Detecting Broken Symmetries in High-Temperature Superconductors", Colloquium, Department of Physics, Kent State University, Kent, OH.
266. November 12, 2002  
"Detecting Broken Symmetries in High-Temperature Superconductors", Colloquium, Department of Physics, "The Ohio State University, Columbus, OH.
267. September 5, 2002  
"Andreev Bound State Tunneling Spectroscopy of YBCO Thin Films and BSCCO Single Crystals", Sixth Franco-American Workshop on Functional Oxides, September 5-6, 2002, Caen, FR.

268. July 15, 2002  
“Planar Tunneling Spectroscopy of High-Temperature Superconductors: Andreev Bound States and Broken Symmetries”, Third US-Polish Workshop on Superconductivity and Magnetism of Advanced Materials, Poland July 14 – 19, 2002, Ladek Zdroj.
269. July 1, 2002  
“Novel Superconductors and Realistic Theories”, Invited Talk and Discussion Leader, Gordon Research Conference on Correlated Electron Systems, June 29 – July 3, Colby College, Waterville, ME.
270. April 22, 2002  
“Detection of Broken Symmetries with Andreev Bound State Tunneling Spectroscopy” First International Workshop on the Symmetry in Macroscopic Quantum States- Quantitative Experiments and Theory -April 21-23, 2002 · Augsburg, Germany.
271. April 6, 2002  
“Planar Tunneling Spectroscopy of High-Temperature Superconductors: Searching for the Mechanism”, 2002 Department of Energy Workshop on High-Temperature Superconductors, April 5-8, 2002, San Diego, CA.
272. March 19, 2002  
“And I’m a Materials Girl”, Maria Goeppert-Mayer Award Winners Panel, March Meeting of the American Physical Society, March 18-22, 2002, Indianapolis, IN.
273. March 11, 2002  
“Planar Tunneling Spectroscopy of High-Temperature Superconductors: Measuring Broken Symmetries”, Seminar, Brockhouse Institute for Materials Research, McMaster University, Hamilton, ONT, Canada.
274. February 12, 2002  
“Convergent Learning Through Divergent Teaching”, University of Illinois at Urbana-Champaign 2002 Annual Faculty Retreat on Active Learning: “Teaching our Students to think in the Language of our Discipline”, University of Illinois at Urbana, Champaign.
275. January 11, 2002  
“High-Temperature Superconductivity: From Broken Symmetries to Cell Phones”, General Talk, Women’s Study Center, University of California at San Diego, San Diego, CA.
276. January 10, 2002  
“Detecting Broken Symmetries in High-Temperature Superconductors”, Colloquium, Department of Physics, University of California at San Diego, San Diego, CA.
277. November 23, 2001  
“Planar Tunneling Spectroscopy of High-Temperature Superconductors: Measuring Broken Symmetries”, Seminar, Department of Theoretical Physics -- ETH, Zürich, Switzerland.
278. November 12, 2001  
“Passion with Process”, Keynote Speaker for Phi Kappa Phi Initiation, University of Illinois, Urbana, IL.
279. September 10, 2001  
“Spectroscopic Searches for Broken Time-Reversal Symmetry in High-Temperature Superconductors”, Gordon Research Conference on Superconductivity, September 9-14, 2001, Queens College, Oxford, England.

280. August 20, 2001  
“Platforms for Passion”, New Student Convocation Address, University of Illinois at Urbana-Champaign, Urbana, IL.
281. July 19, 2001  
“Spectroscopic Studies of Andreev Bound States with Planar Tunneling Spectroscopy and Grazing Incidence Polarized Neutron Scattering”, Aspen workshop on Emergent Behavior in Correlated Electron Materials, July 1-30, 2000, Aspen, CO.
282. June 4, 2001  
“Measurements of Broken Time-Reversal Symmetry in High-Temperature Superconductors with Andreev Bound State Tunneling and Other Spectroscopies”, Seminar, Division of Basic Energy Sciences, Department of Energy, Germantown, MD.
283. May 25, 2001  
“Detecting Broken Symmetries in High-Temperature Superconductors”, Colloquium, University of Cambridge, Cavendish Laboratory, Cambridge, UK.
284. May 22, 2001  
“Observation of Broken Time Reversal Symmetry With Andreev Bound State Tunneling Spectroscopy”, Seminar, Blackett Laboratory, Imperial College, London SW7 2BW, UK.
285. April 19, 2001  
“Detecting Broken Symmetries in High-Temperature Superconductors”, Colloquium, Department of Physics, University of Chicago, Chicago, IL
286. March 20, 2001  
“Detecting Broken Symmetries in High-Temperature Superconductors”, Colloquium, Department of Physics and Astronomy, University of South Carolina, Columbia, SC.
287. February 27, 2001  
“Detecting Broken Symmetries in High-Temperature Superconductors”, Colloquium, Department of Physics, Georgetown University, Georgetown, MD.
288. February 14, 2001  
“Detecting Broken Symmetries in High-Temperature Superconductors”, Colloquium: APS (Advanced Photon Source), Argonne National Laboratories.
289. January 29, 2001  
“Measuring Broken Symmetries in Unconventional Superconductors”, Colloquium, Department of Physics, University of California at Davis, Davis, CA
290. January 10, 2001  
“Spontaneously Broken-Time-Reversal Symmetry in Unconventional Superconducting Materials”, at ICAM-DEM-01: Workshop on Designing Emergent Materials, sponsored by the Institute for Complex and Adaptive Materials, January 8 – 12, 2001, Santa Fe, NM.
291. November 30, 2000  
“Direct Detection of Spontaneously Broken Time-Reversal Symmetry in the Near-Surface Region of Superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films”, Institute for Theoretical Physics (ITP), Santa Barbara, CA.
292. November 19, 2000  
“Professor M. V. Klein: Leader, Advisor and Mentor (i.e., Miles, the Maven and Mensch)” at Kleinfest: In honor of the Retirement of Professor Miles V. Klein, November 19-20, 2000, Urbana, IL.



293. September 25, 2000  
 “Quasiparticle Tunneling Spectroscopy of High-Temperature Superconductors: Effects of Broken Symmetries on Interfaces”, Keynote Lecture at the Workshop on Interfaces in Grain Boundary in High-Temperature Superconductors, September, 25-26, 2000, Williamsburg, VA.
294. September 19, 2000  
 “Tunneling into High-Temperature Superconductors: Spectroscopy of Broken Symmetries”, Seminar, Argonne National Laboratory, Argonne, IL.
295. August 19, 2000  
 “High-Temperature Superconductors: From Broken Symmetries to Cell Phones”, NSF Educational Development Program for High-School Teachers, (audience consists of about 100 high-school teachers chosen from all over the US), Santa Barbara, CA.
296. August 15, 2000  
 “Planar Tunneling and ESR Measurement of T-Breaking”, The Institute for Theoretical Physics (ITP), Workshop on High Temperature Superconductivity, August 14-18, 2000, Santa Barbara, CA.
297. July 17 - 21, 2000  
 “Tunneling Spectroscopy, Andreev Bound States and Broken Time-Reversal Symmetry”, Series of lectures given for the NSF US Summer School on Condensed Matter Physics: “Introduction to Superconductivity: Fundamentals and Applications”, July Boulder, CO
298. June 2, 2000  
 “Tunneling and EPR Measurements of the Andreev Bound State of High-Temperature Superconductors: Spectroscopies of Unconventional States and Broken Time-Reversal Symmetry”, Condensed Matter Physics Seminar, University of California, Irvine, Irvine, CA.
299. June 1, 2000  
 “Tunneling into High-Temperature Superconductors: Spectroscopy of Broken Symmetries”, Colloquium, Department of Physics, University of California, Irvine, Irvine, CA
300. May 4, 2000  
 “Tunneling and EPR as Spectroscopic Probes of Unconventional Superconductivity and Broken Time-Reversal Symmetry”, CNRS-STcS Workshop on High-Temperature Superconductivity, May 4-6, Paris, France.
301. April 3, 2000  
 “Andreev Bound State Tunneling and EPR Spectroscopy of High-Temperature Superconductors: Measurements of Anisotropy, Quasiparticle Scattering and Broken Time-Reversal Symmetry”, Conference on Major Trends in Superconductivity for the New Millennium (MTSC-2000), March 31 – April 5, Klosters, Switzerland.
302. March 21, 2000  
 “Andreev Bound State Tunneling Spectroscopy on YBCO/Pb and YBCO/Cu Junctions”, March Meeting of the American Physical Society, March 20-24, 2000, Minneapolis, MN.
303. February 22, 2000  
 “Tunneling Spectroscopy of the Andreev Bound State of YBCO: Measurements of Broken Time-Reversal Symmetry, Anisotropy and Quasiparticle Scattering”. Sixth International Conference on the Materials and Mechanisms of Superconductivity and High-Temperature Superconductivity, M<sup>2</sup>S-HTSC-VI, February 20-25, 2000, Houston, TX.

304. January 31, 2000  
“Tunneling into High-Temperature Superconductors: Spectroscopy of Broken Symmetries”,  
General Physics Colloquium, Cornell University, Ithaca, NY.
305. October 27, 1999  
Observation of Broken Symmetries in High-Temperature Superconductors with Tunneling  
Spectroscopy”, General Physics Colloquium, Boston University, Boston, MA
306. September 24, 1999  
“Tunneling in High-Temperature Superconductors: Spectroscopy of Broken Symmetries”, General  
Physics Colloquium, University of Wisconsin at Madison, Madison, WI
307. August 9, 1999  
“Observation of Broken Time-Reversal Symmetry with Andreev Bound State Tunneling  
Spectroscopy”, Twenty-Second International Conference on Low-Temperature Physics, LT-22,  
August 4-11, Helsinki, Finland.
308. July 27, 1999  
“Tunneling into High-Temperature Superconductors: Exploring Forbidden Paths”, CMM Invited  
Lecture Series, Center for Microanalysis of Materials, Seitz Materials Research Laboratory,  
University of Illinois at Urbana-Champaign, Urbana, IL.
309. July 14, 1999  
“Tunneling into High-Temperature Superconductors: Exploring Forbidden Paths”, Heinz R. Pages  
Memorial Lecture, 1999, (Evening Public Lecture), Aspen Institute, Aspen, CO.
310. July 14, 1999  
“Tunneling into High-Temperature Superconductors: Observation of Broken Time Reversal  
Symmetry”, Seminar, Workshop on Unconventional Order in Metals, July 5 – August 1, 1999,  
Aspen Center for Physics, Aspen, CO.
311. June 23, 1999  
“Andreev Bound State Spectroscopy: Detecting Broken Symmetries”, Joint Sacs / CNRS Workshop  
on Materials and Physics of High-Temperature Superconductivity, June 23-24, 1999, Northwestern  
University, Evanston, IL.
312. June 8, 1999  
“Tunneling into Andreev Bound States of YBCO: Spectroscopy of Unconventional States and  
Broken Time-Reversal Symmetry”, Seminar, Department of Physics, University of Maryland,  
College Park, MD.
313. June 2, 1999  
“Tunneling into High-Temperature Superconductors: Detecting Phase and Broken Time-Reversal  
Symmetry”, Sugihara / Harris Symposium, June 1, 1999, Oregon State University, Corvallis, OR.
314. May 17, 1999  
“Tunneling into High-Temperature Superconductors: Spectroscopy of Broken Symmetries”,  
Condensed Matter Physics / Electrical Engineering Seminar, Princeton University, Princeton, NJ.
315. April 7, 1999  
“Andreev Bound State Tunneling Spectroscopy of High-Temperature Superconductors”,  
Colloquium, Department of Physics, McMaster University, Hamilton Ontario, CANADA
316. April 7, 1999  
“Tunneling in High-Temperature Superconductors: Spectroscopy of Broken Symmetries”,  
Colloquium, Department of Physics, McMaster University, Hamilton Ontario, CANADA

317. February 23, 1999  
“Tunneling in High-Temperature Superconductors: Spectroscopy of Broken Symmetries”,  
Colloquium, Department of Physics, Stony Brook, Stony Brook, NY
318. February 8, 1999  
“Career Paths of a Female Experimental Physicists: Growing from the Challenge”, Panel  
discussion: Women in Math Science and Engineering (WIMSE), University of Illinois at Urbana-  
Champaign, Urbana, IL
319. February 5, 1999  
“Tunneling in High-Temperature Superconductors: Spectroscopy of Broken Symmetries”,  
Colloquium, Department of Physics, University of Kentucky, Lexington, KY.
320. February 1, 1999  
“Zero-Bias Tunneling Anomalies and Andreev Bound States”, ONR Workshop on Interfaces to  
Superconductors, Jan. 31 – Feb. 2, 1999, Lake Isabella, CA.
321. January 25, 1999  
“Tunneling Spectroscopy of High-Temperature Superconductors: Detecting Unconventional States  
and Broken Time-Reversal Symmetry”, Condensed Matter Physics Seminar, Department of  
Physics, University of Florida at Gainesville, Gainesville, FL.
322. November 27, 1998  
“Tunneling in High-Temperature Superconductors: Spectroscopy of Broken Symmetries” ,  
Colloquium, Department of Physics, Simon Fraser University, Vancouver, BC, CANADA
323. November 26, 1998  
“Tunneling in High-Temperature Superconductors: Spectroscopy of Broken Symmetries” ,  
Colloquium, Department of Physics, University of British Columbia, Vancouver, BC, CANADA
324. November 26, 1998  
“Tunneling into Andreev Bound States of  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Observation of Broken Time-Reversal  
Symmetry”, Condensed Matter Physics Seminar, Department of Physics, University of British  
Columbia, Vancouver, BC, CANADA
325. November 10, 1998  
“Tunneling Spectroscopy of High-Temperature Superconductors: Probing Broken Symmetries”,  
Colloquium, University of Illinois Physics Society, Urbana, IL
326. November 6, 1998  
“High-Temperature Superconductivity: From Nobel Prizes to the Market Place”, Natural Sciences  
Colloquium, Illinois Wesleyan University, Bloomington, IL.
327. October 24, 1998  
“High-Temperature Superconductors: From Broken Symmetries to Cell Phones”, Saturday Physics  
Honors Program Lecture, Department of Physics, University of Illinois at Urbana-Champaign,  
Urbana, IL
328. October 13, 1998  
“High-Temperature Superconductivity: From Broken Symmetries to Cell Phones”, Colloquium,  
Department of Physics, Illinois State University, Normal, IL.
329. September 27, 1998  
“Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Andreev Bound States and Broken Time Reversal Symmetry”, First  
Euroconference on Anomalous Complex Superconductors ACS-I '98, September 26 - October 3,  
1998, Crete, Greece.

330. August 10, 1998  
"Materials Science Research: Views of a Materials Physicist", Argonne National Laboratory, Argonne, IL.
331. July 30, 1998  
"Broken Time-Reversal Symmetry in High-Temperature Superconductors", Lecture at the Aspen Center for Physics Workshop on High-Temperature Superconductivity, July 6-August 9, 1998, Aspen, CO.
332. April 19, 1998  
"High-Temperature Superconductors: From Broken Symmetries to Cell Phones", Plenary Talk at the 1998 Joint Meeting of the American Physical Society and the American Association for the Advancement of Physics Teachers (APS/AAPT-APR98), April 18-21, 1997; Columbus, OH.
333. April 15, 1998  
"High-Temperature Superconductivity: From Nobel Prizes to the Market Place", Sigma-Pi Sigma Induction Ceremony, Ohio Section, University of Cincinnati, Cincinnati, OH.
334. February 23, 1998  
"Tunneling Spectroscopy of High-Temperature Superconductors: Unconventional States and Broken Time-Reversal Symmetry", Physics Colloquium, Harvard University, Cambridge, MA.
335. February 9, 1998  
"Tunneling Spectroscopy of High-Temperature Superconductors: Unconventional States and Broken Time-Reversal Symmetry", Physics Colloquium, Bryn Mawr College, Bryn Mawr, PA.
336. January 18, 1998  
"High-Temperature Superconductors: Model Quantum Solids", NEDO (New Energy and Industrial Technology Development Organization of Japan) / UIPAP (International Union of Pure and Applied Physicists) Workshop on Quantum Fluids and Solids, January 17-18, 1998, East-West Center, Honolulu, HI
337. December 11, 1997  
"Tunneling Spectroscopy of High-Temperature Superconductors: Viewing Unconventional States and Broken Time-Reversal Symmetry", Physics Colloquium, Wayne State University, Detroit, MI.
338. November 12, 1997  
"Tunneling in High-Temperature Superconductors: Finding Treasures in Forbidden Paths", Lecture at the Center for Advanced Study, University of Illinois at Urbana-Champaign, Urbana, IL.
339. October 13, 1997  
"Tunneling into Andreev Bound States of  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Observation of Broken Time-Reversal Symmetry", NSF Conference on The Advancing Frontiers of Condensed Matter Science, October 13-14, 1997, University of Pennsylvania, Philadelphia, PA.
340. September 17, 1997  
"Tunneling into Andreev Bound States of  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Observation of Broken Time-Reversal Symmetry", 1997 Conference on Spectroscopies on Novel Superconductors (SNS'97), September 14-18, 1997, Cape Cod, MA.
341. May 22, 1997  
"Tunneling as a Powerful Probe of Unconventional Superconductivity: Observation of Broken Time-Reversal Symmetry, and More!", Science and Technology Center For Superconductivity, Center-Wide Meeting, Argonne National Laboratory, Argonne, IL.

342. May 20, 1997  
"Tunneling in High-Temperature Superconductors: Spectroscopy of Unconventional States", (Maria Goeppert-Mayer Award Lecture) , Colloquium, The Ohio State University, Columbus, OH
343. May 13, 1997  
"Tunneling Spectroscopy of High-Temperature Superconductors", (Maria Goeppert-Mayer Award Lecture) Physics and Chemistry Seminar, Kalamazoo College, Kalamazoo, MI
344. May 12, 1997  
"High-Temperature Superconductivity: From Nobel Prizes to the Market Place", (Maria Goeppert-Mayer Award Lecture) Jennifer Mills Lecture, Kalamazoo College, Kalamazoo, MI.
345. April 10, 1997  
"Tunneling Spectroscopy of High-Temperature Superconductors: Observation of Surface-Induced Broken Time-Reversal Symmetry", Colloquium, University of Illinois at Urbana-Champaign, Urbana, IL
346. March 27, 1997  
"Tunneling Spectroscopy of Superconducting  $Y_{1-x}Pr_xBa_2Cu_3O_7$  Thin Films", (Maria Goeppert-Mayer Award Lecture) , Colloquium, New Mexico Institute of Technology, Socorro, NM
347. March 19, 1997  
"Zero Bias Anomalies in High-Temperature Superconductors: Observation of Surface-Induced Broken Time-Reversal Symmetry in  $YBa_2Cu_3O_7$  Tunnel Junctions", March Meeting of the American Physical Society, March 17-21, 1997, Kansas City, MO.
348. February 10, 1997  
"High-Temperature Superconductors: Thin Films and Devices", Panel on Thin Films and Devices NSF/ONR Workshop, Feb. 9 - 12, 1997, Monterey, CA.
349. January 30, 1997  
"Tunneling in High-Temperature Superconducting Thin Films: Spectroscopy of the  $YBa_2Cu_3O_7$  Superconducting Order Parameter", Colloquium, Pennsylvania State University, College Station, PA
350. January 17, 1997  
"Tunneling Spectroscopy of Superconducting  $Y_{1-x}Pr_xBa_2Cu_3O_7$  Thin Films", Gordon Conference on Superconductivity, Jan. 16-21, Ventura, CA.
351. January 16, 1997  
"Raman Scattering as a Probe of the Superconducting Proximity Effect", Gordon Conference on Superconductivity, Jan. 16-21, Ventura, CA (invited poster & short talk)
352. January 9, 1997  
"Tunneling Spectroscopy of High-Temperature Superconductors", (Maria Goeppert-Mayer Award Lecture) Colloquium, California Polytechnic Institute, San Luis Obispo, CA.
353. December 11, 1996  
"Revolutions in Superconducting Materials", Talk for the Frontiers of Science Series, University of Florida, Gainesville, FL.
354. August 23, 1996  
"Zero-Bias Tunneling Anomalies in High- $T_c$  Cuprates", Workshop on Tunneling Phenomena in High-Temperature Superconductors, Argonne National Laboratory, August 23-24, 1996, Argonne, IL.

355. August 12, 1996  
 "Raman Scattering as a Probe of the Superconducting Proximity Effect", The XXI International Conference on Low-Temperature Physics (LT21), August 8-14, 1996, Prague, Czech Republic.
356. July 24, 1996  
 "Tunneling Spectroscopy of Superconducting  $Y_{1-x}Pr_xBa_2Cu_3O_7$  Thin Films", Gordon Conference on Correlated Electrons, July 21-25, 1996, Plymouth State College, Plymouth, NH, (short talk and poster).
357. July 23, 1996  
 "Optical Detection of the Superconducting Proximity Effect: Raman Scattering on Nb/InAs", Gordon Conference on Correlated Electrons, July 21-25, 1996, Plymouth State College, Plymouth, NH, (short talk and poster).
358. January 30, 1996  
 "Optical Detection of the Superconducting Proximity Effect", SPIE International Symposium on Spectroscopic Studies of Superconductors, January 27 - February 2, 1996, San Jose, CA.
359. July 24, 1995  
 "Interfaces to High-Temperature Superconductors: Future directions", Lecturer at the Science and Technology Center for Superconductivity (STCS) Retreat, July 23-25, Findlay, IL.
360. July 13, 1995  
 "Josephson Junction Fabrication for High-Temperature Superconductors", Lecture at the Midwest Superconductivity Consortium (MISCON) Summer School on Josephson Junctions for High-Temperature Superconductors, July 13-14, Columbia, MO.
361. May 25, 1995  
 "Charge Transport Across Superconductor-Semiconductor and Superconductor-Metal Interface", Department of Energy, Germantown, MD.
362. March 2, 1995  
 "Charge Transport Across Superconductor-Semiconductor and Superconductor-Metal Interface", Seminar at the Materials Research Laboratory, University of Illinois at Urbana-Champaign.
363. December 1, 1994  
 "Superconductive Tunneling and Proximity-Effects in  $YBa_2Cu_3O_7$  Thin Films", Physics Colloquium, University of Toronto, Toronto, CANADA
364. November 30, 1994  
 "Superconductive Tunneling and Proximity-Effects in  $YBa_2Cu_3O_7$  Thin Films", Physics Colloquium, McMaster University, Hamilton, Ontario, CANADA
365. November 29, 1994  
 Physics Today Round Table: National Press Building, Washington, DC.
366. November 3-4, 1994  
 National Academy of Sciences symposium on the Frontiers of Science, Beckman Center, Irvine, CA
367. September 23, 1994  
 "Superconductive Tunneling and Proximity-Effects: Dependence upon Crystallographic Orientation in  $YBa_2Cu_3O_7$  Thin Films", Solid State Physics Seminar, Purdue University, West Lafayette, IN.
368. April 21, 1994  
 "Superconductive Tunneling and Proximity-Effects: Dependence upon Crystallographic

- Orientation in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films”, Physics Department Colloquium, Florida State University, Tallahassee, FL
369. April 5, 1994  
 “Proximity Effects and Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  /  $\text{PrBa}_2\text{Cu}_3\text{O}_7$  Layered Structures vs. Crystallographic Orientation”, Spring Meeting of the Materials Research Society, April 4-8, San Francisco, CA.
370. March 22, 1994  
 “Doping, Tunneling and Proximity-Effects in High-Temperature Superconductors”, Lecture for receipt of the Maria Goeppert-Mayer Award, March Meeting of the American Physical Society, March 22-25, Pittsburgh, PA.
371. March 11, 1993  
 “Tunneling, Proximity and Kondo Effects in Crystallographically Oriented  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films”, Solid State Physics Seminar, The Ohio State University, Columbus, OH.
372. February 22, 1993  
 “Tunneling and Proximity effects in Crystallographically-Oriented  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Films”, Departments of Physics and Chemistry Seminar, University of California at Riverside.
373. January 6, 1993  
 “Proximity effects in Nb on Compound-Semiconductor Heterostructures”, Gordon Conference on Superconductivity, January 4-8, 1993, Oxnard, CA.
374. September 18, 1992  
 “Tunneling in Novel Materials: High-Temperature Superconductors and More”, University of Illinois College of Engineering Advisory Board, Urbana, IL.
375. April 2, 1992  
 “Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Effects of Crystallographic Orientation”, Solid State Physics Seminar, Department of physics, University of Cincinnati, Cincinnati, OH.
376. March 23, 1992  
 “Tunneling and Proximity Effects in Novel Materials”, Joint Research Colloquium: Department of Physics / Materials Institute, Princeton University, NJ
377. March 19, 1992  
 “Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  Thin Films: Effects of Crystallographic Orientation”, March Meeting of the American Physical Society, March 16-20, 1992, Indianapolis, IN.
378. February 20, 1992  
 “Superconductive Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Effects of Crystallographic Orientation”, Solid State Physics Seminar, Department of Physics, University of Colorado, Boulder, CO.
379. February 7, 1992  
 “New Phenomena from Novel Materials: Importance of Growth Control and Characterization”, Colloquium, Department of Materials Science and Engineering, M.I.T., Cambridge, MA.
380. January 23, 1992  
 “Superconductive Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Effects of Crystallographic Orientation”, Solid State Physics Seminar, Dept. of Physics, University of North Carolina, Chapel Hill, NC.
381. January 22, 1992  
 “Tunneling, Josephson and Proximity Effects: Applications to High-Temperature Superconductors”, General Physics colloquium, University of North Carolina, Chapel Hill, NC.

382. November 26, 1991  
"Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Effects of Crystallographic Orientation", Solid State Physics Seminar, University of Illinois, Urbana, IL.
383. September 24, 1991  
"Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Effects of Crystallographic Orientation", New York State Institute on Superconductivity 5<sup>th</sup> Annual Convention, Sept. 24-16, Buffalo, NY.
384. September 10, 1991  
"Tunneling, Proximity Effects in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Effects of Crystallographic Orientation", Solid State Physics Seminar, Department of Physics, Cornell University, Ithaca, NY.
385. July 1, 1991  
"Tunneling in High- $T_c$  Cuprates", General Research Colloquium, Department of Physics, Kent State University, Kent, OH.
386. June 25, 1991  
"Effects of Crystallographic Orientation on Superconductive Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films", High- $T_c$  Applications Symposium, Drexel University, Philadelphia, PA.
387. June 12, 1991  
"Tunneling vs. Magnetic Field and Crystallographic Orientation in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Films", Gordon Conference, Condensed Matter Physics, Brewster Academy, Wolfeboro, NH, June 10-14.
388. May 23, 1991  
"Superconductive Tunneling in High- $T_c$  Thin Films: Dependence Upon Crystallographic Orientation", General Research Colloquium, Department of Physics, New York University, New York, NY.
389. May 9, 1991  
"Superconductive Tunneling, Josephson Effects and Proximity Effects in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films", General Research Colloquium, Department of Physics, University of Cincinnati, Cincinnati, OH.
390. May 8, 1991  
"Superconductive Tunneling: Information from Forbidden Paths", University of Cincinnati Departments of Chemistry and Physics Lecture Series: "High-Temperature Superconductivity, Promise for the 1990's", Cincinnati, OH.
391. April 17, 1991  
"Superconductive Tunneling in General and Relations to High- $T_c$  Films in Particular", General Research Colloquium, Stockton College, NJ.
392. March 16, 1991  
"Tunneling as a Function of Crystallographic Orientation in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Superconducting Films", Workshop on Tunneling and Devices in High- $T_c$  Superconductors, Science and Technology Center for Superconductivity, March 15-17 Argonne National Laboratory, Argonne, IL
393. February 28, 1991  
"Tunneling in High- $T_c$  Superconducting Films", Seminar, Departments of Physics and Engineering, Brown University, Providence, RI.
394. January 15, 1991  
"Optimizing Tunneling and Josephson Effects via Growth Morphology in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Films", Int'l Superconductor Applications Convention: SC GLOBAL 91, January 14-16, San Diego, CA
395. January 4, 1991  
"Superconductive Tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  Thin Films: Dependence on Growth Morphology",



- University of Miami Workshop on Electronic Structure and Mechanisms for High-Temperature Superconductivity, January 3-9, Miami, FL.
396. August 27, 1990  
 “Superconductive Proximity-Effects in Nb on InGaAs-based Heterostructures”, The 19<sup>th</sup> International Conference on Low-Temperature Physics (LT-19), Brighton, Sussex, UK
397. June 21, 1990  
 “Superconductivity: A Tutorial from Hg to High-T<sub>c</sub>”, Special Seminar/Class to Bellcore Technicians, Bellcore, Red Bank, NJ.
398. June 18, 1990  
 “Recent Advances in High-Temperature Superconductivity”, General Research Colloquium to Laboratory of Operations Technology. Bellcore, Red Bank, NJ.
399. June 14, 1990  
 “Proximity and Josephson Effects in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>/Metal Layered Films”, Gordon Conference on Condensed Matter Physics, Brewster Academy, Wolfeboro, NH.
400. June 12, 1990  
 “Proximity-Effects in Nb/InGaAs SIN Junctions: Effects of Thinning the Schottky Barrier”, Gordon Conference on Condensed Matter Physics, Brewster Academy, Wolfeboro, NH.
401. May 29, 1990  
 “Superconductive Tunneling, Proximity & Josephson Effects in High-Temperature Superconductors”, Colloquium, Departments of Physics and Chemistry, Drexel University, Philadelphia, PA.
402. April 26, 1990  
 “Tunneling and Josephson Effects: Conventional Knowledge to High-T<sub>c</sub> Superconductors”, Seminar: Physics Department, Carnegie-Mellon University, Pittsburgh, PA.
403. April 19, 1990  
 “Superconductive Tunneling, Proximity- and Josephson-Effects in Novel Thin-Film Structures”, Research Colloquium, Department of Physics, Polytechnic University, Brooklyn, NY.
404. April 19, 1990  
 “Tunneling, Josephson Effects and High T<sub>c</sub>, Layered Thin-Film Structures”, Solid State Physics Seminar, Department of Physics, Johns Hopkins University, Baltimore, MD.
405. February 16, 1990  
 “Tunneling and Josephson Effects with Relations to High-Temperature Superconductors”, Colloquium, Department of Physics, Dartmouth University, Dartmouth, NH.
406. February 6, 1990  
 “Tunneling and Josephson Effects with Relations to High-Temperature Superconductors”, Solid State Physics Seminar, Dept. of Physics, University of Pennsylvania, Philadelphia, PA
407. December 1, 1989  
 “Proximity-Effect and Tunneling in YBCO/Metal layered Structures”, Fall meeting of the Materials Research Society, Boston, MA.
408. October 31, 1989  
 “Sputter Deposition and Tunneling Measurements in High-T<sub>c</sub> Films”, Joint ETDL/Bellcore Workshop on High Temperature Superconductivity, Fort Monmouth, NJ.

409. August 22, 1989  
"Tunneling and Proximity-Effects: Relations to Experiments on HTSC", NATO-Advanced Study Institute on Physics and Materials on High Temperature Superconductivity, Bad Windsheim, FRG.
410. June 26, 1989  
"Studies of Proximity-Effect and Tunneling in YBCO/Metal Layered Films", Meeting on the Materials and Mechanisms of Superconductivity-High Temperature Superconductivity (MMS-HTSC), Stanford, CA (contributed).
411. June 28, 1989  
"Proximity-Effect and Tunneling Studies of YBCO/Metal Layered Structures", Gordon Research Conference on Condensed Matter Physics – "Phenomenology of High-Temperature Superconductors", Brewster Academy, Wolfeboro, NH.
412. June 20, 1989  
"Tunneling Studies of YBCO/Metal Layered Films", NJ Governor's Conference "Fundamental Issues in High-T<sub>c</sub> Superconductivity", Princeton, NJ.
413. January 13, 1989  
"Physical Properties" Superconducting Supercollider Group Colloquium, Lawrence Berkeley Labs, Berkeley, CA.
414. January 12, 1989  
"Recent Magnetic and Structural Studies of the High-T<sub>c</sub> Cuprates at Bellcore", SC-GLOBAL-89: International Superconductor Applications Conventions, San Francisco, CA.
415. December 9, 1988  
"High-Temperature Superconductivity", Society for Industrial and Applied Mathematics (SIAM): Conference on Random Media and Composites, Leesburg, VA
416. November 17, 1988  
"Structural, Magnetic and Electronic Transport Properties of Substituted High-T<sub>c</sub> Cuprates", Brookhaven National Laboratory, Brookhaven, NY.
417. November 1, 1988  
"High-Temperature Superconductivity: What's All the Heat About?", AAAS Sponsored Science Seminars for Teachers Program, Boston, MA.
418. October 14, 1988  
"Physical Properties of the Pure and Metal-Substituted High-T<sub>c</sub> Cuprates", Solid State Physics Seminar, University of Illinois at Champaign-Urbana, Urbana, IL.
419. October 11, 1988  
"Thick and Thin Film Processing of High-T<sub>c</sub> Oxides at Bellcore", Meeting of the Electrochemical Society, Chicago, IL.
420. October 5, 1988  
"Physical Properties of Chemically-Doped High-T<sub>c</sub> Cuprates", Solid State Physics Seminar, Department of Physics, The City College of New York, NY.
421. July 11, 1988  
"The Role of Bond Lengths in High-T<sub>c</sub> Materials", DOE Information Meeting: High Transition Temperature Superconductors, Ames, IA.
422. June 7, 1988  
"Physical Properties of Chemically-Doped High-T<sub>c</sub> Oxide Superconductors", Seminar on Frontier Technology: Association for the Progress of New Chemistry, Shuzenji, Japan.

423. June 6, 1988  
"Physical Properties of the Superconducting Compound Series  $\text{Bi}_2\text{Sr}_2\text{Ca}_{n-1}\text{Cu}_n\text{O}_x$ ;  $n=1, 2$  and  $3$ ",  
Departments of Physics and Industrial Chemistry, The University of Tokyo, Tokyo, Japan.
424. June 3, 1988  
"Thick and Thin Film High- $T_c$  Research at Bellcore", Workshop on Future Electron Devices,  
Miyagi-Zao, Japan.
425. May 11, 1988  
"Recent Developments in High-Temperature Superconductivity", Bell of Pennsylvania; Brown bag  
University, College of Network, Philadelphia, PA.
426. April 21, 1988  
"Oxygen Stoichiometry in Pure and Doped High-Temperature Superconductors", Symposium on  
High-Temperature Superconductors: Structure and Microstructure, Bad Nauheim, Germany
427. April 13, 1988  
"Physical Properties of Substituted High-Temperature superconductors", Physics Department,  
Steven's Institute of Technology, Hoboken, NJ.
428. April 11, 1988  
"High-Temperature Superconductivity: What's all the Heat About?", American Chemical Society,  
Monmouth College, West Long Branch, NJ.
429. March 22, 1988  
"Achieving Zero Resistance and Bulk Superconductivity above 100K in the  $\text{BiSrCaCuO}$  System",  
Panel, Meeting of the American Physical Society, March 21-25, New Orleans, LA.
430. March 21, 1988  
"Doping of High- $T_c$  Superconductors on the Cu-Sites", March Meeting of the American Physical  
Society, March 21-25, New Orleans, LA.
431. March 2, 1988  
"Physical Properties of High- $T_c$  Superconductors", Kernforschungszentrum Karlsruhe, Karlsruhe,  
FRG.
432. March 2, 1988  
"Chemical Doping on the Cu-sites in High- $T_c$  Superconductors", International Conference on  
Materials and Mechanisms of Superconductivity; High-Temperature Superconductivity, February  
29-March 4, Interlaken, Switzerland.
433. February 8, 1988  
"High-Temperature Superconductivity", Bellcore Division 22630 (ISDN) Seminar, Bellcore, Red  
Bank, NJ.
434. January 25, 1988  
"Physics of High- $T_c$  Superconductors: Status", Joint Bellcore and DuPont Seminar, Bellcore, Red  
Bank, NJ.
435. January 19, 1988  
"Physical Properties of Chemically-Doped High- $T_c$  Oxide Superconductors", Center for Materials  
Science, Los Alamos National Laboratory, Los Alamos, NM.
436. December 7, 1987  
"Physical Properties of the Chemically-Doped High- $T_c$  Superconductors", Joint US-USSR  
Academies, Conference on Condensed Matter Theory, Institute for Theoretical Physics, University  
of California at Santa Barbara.

437. December 2, 1987  
"High-Temperature Superconductivity: A Scientific Revolution", Sigma-XI Society of Princeton, Princeton, NJ.
438. November 6, 1987  
"Chemical Doping of High Temperature Superconductors", Meeting of the American Chemical Society, Southeast Section, Orlando, FL.
439. November 5, 1987  
"The Effects of Chemical Doping on the Physical Properties of High  $T_c$  Superconductors", University of Florida, Department of Physics, Gainesville, FL.
440. October 30, 1987  
"Plasma Oxidation and 3d Doping of High  $T_c$  Superconductors", Canadian Conf. on High Temperature Superconductivity, McMaster University, Hamilton, Ont.
441. October 30, 1987  
"Chemical Doping of Oxide Superconductors", 35<sup>th</sup> Annual Meeting of the American Physical Society, Midwest Section, Notre Dame University.
442. October 19, 1987  
"Physical Properties of the Chemically Doped High  $T_c$  Superconductors", MIT Physics/Industry Forum, MIT Physics Department, Cambridge, MA.
443. October 15, 1987  
"Recent Developments in High  $T_c$  Superconductors". Plenary Lecture, Meeting of the American Physical Society Division of Nuclear Physics, New Brunswick, NJ.
444. September 26, 1987  
"Some Experimental Facts to Consider of High  $T_c$  Superconductivity", The First RVB (Resonating Valence Bond) Workshop, Princeton University, Princeton, NJ.
445. September 9, 1987  
"Physical Properties of the Chemically Doped Oxide Superconductors", Academia Sinica (Chinese Academy of Physics), Beijing, China, PR.
446. September 7, 1987  
"Physical Properties of the Chemically Doped High  $T_c$  Perovskites", Peking University, Department of Physics, Beijing, China, PR.
447. September 2, 1987  
"Order/Disorder Effects of Oxygen and 3d Metal Doping in Oxide Superconductors", Yamada Conference XVIII on Correlated Fermion Systems, Sendai, Japan.
448. August 31, 1987  
"Chemical Doping Effects on High  $T_c$  Superconductors", Tsukuba University, Department of Physics, Tsukuba Science City, Japan.
449. August 30, 1987  
"Chemical Doping of High  $T_c$  Materials", University of Tokyo, Department of Industrial Chemistry, Tokyo, Japan.
450. August 28, 1987  
"Plasma Oxidation and Chemical-Doping of High  $T_c$  Superconductors", NTT: Nippon Telephone and Telegraph Co., Ibaraki, Japan.

451. August 27, 1987  
"3d-Metal Doping and Plasma Oxidation of Oxide Superconductors", Hitachi Inc. Ltd., Tokyo, Japan.
452. August 21, 1987  
"Oxygen and 3d-Metal Doping of High  $T_c$  Perovskites", The 18<sup>th</sup> International Conference on Low Temperature Physics (LT-18), Kyoto, Japan.
453. August 7, 1987  
"Oxygen, Rare-Earth and 3d-Metal Doping of the Perovskite Superconductors", AT&T Bell Laboratories, Murray Hill, NJ.
454. July 30, 1987  
"The Physical Properties of the Chemically-Doped High  $T_c$  Perovskites", Drexel International Conference on High-Temperature Superconductivity, Philadelphia, PA.
455. July 17, 1987  
"High  $T_c$  Oxide Superconductors: Work at Bellcore", Harvard University, Department of Physics, Cambridge, MA.
456. June 24, 1987  
"The Physical Properties of Chemically-Doped High  $T_c$  Copper-Oxide Superconductors", International Workshop on Novel Mechanisms of Superconductivity, Berkeley, CA.
457. June 23, 1987  
"Proximity-Effect and Tunneling in Heavy-fermion/Nb Metallic Superlattices", International Workshop on Novel mechanisms of Superconductivity, Berkeley, CA.
458. June 17, 1987  
"Physical Properties of Chemically-Doped High  $T_c$  Copper-Oxide Superconductors", International Conference on Cryogenic and Magnetic Materials (CMM), Chicago, IL.
459. May 22, 1987  
"Challenges in the New High- $T_c$  Superconductors", National Science Council of the National Science Foundation, Washington, DC.
460. May 15, 1987  
"High-Temperature Superconductivity in Oxygen-Defect Perovskites", McGill University, Department of Physics, Montreal, Canada.
461. May 1, 1987  
"What's Hot in Superconductivity", Bellcore Division, 23400 Seminar, Red Bank, NJ.
462. April 16, 1987  
"Superconducting and Magnetic Properties of Dopes-High- $T_c$  Perovskites", New England Regional Conference on High Temperature Superconductivity, Boston University.
463. March 18, 1987  
" $T_c$ ,  $H_{c2}$  and Structure of Oxide Superconductors", American Physical Society, March Meeting, New York, NY.
464. February 18, 1987  
"What's Hot in Superconductivity", Princeton University, Department of Physics, Princeton, NJ.
465. February 6, 1987  
"High-Temperature Superconductivity", Princeton University, Dept. of Physics, Princeton, NJ.

466. December 5, 1986  
 “Proximity-Effect and Tunneling in heavy-Fermion/Nb Layered Structures”, Fall Meeting of the Material Research Society, December 1-6, 1986, Boston, MA.
467. November 5, 1986,  
 “Proximity-Effect and Tunneling in Heavy-Fermion/Nb Layered Structures”, Solid State Physics Seminar, Department of Physics, Princeton University, Princeton, NJ.
468. August 15, 1984  
 “Structural, Magnetic and Superconducting Properties of Rare-Earth/Superconductor Multilayers”, Int'l Conf. on Superlattices, Microstructures & Microdevices, Aug. 13-16, Urbana, IL.

#### PUBLICATIONS:

1. Han Zhao, Omar Mehio, W.K. Park, and L.H. Greene, “Growth of ultra-thin, and uniform planar tunnel junctions on Nb thin films by Atomic Layer Deposition” Thin Solid Films (submitted).
2. Wei-Cheng Lee and Laura H. Greene “Point contact spectroscopy as a probe of correlated electron states: Theory and experiment” Reports on Progress in Physics (submitted, arXiv:1512.02660v1).
3. W.K. Park, L. Sun, A. Noddings, D.-K. Kim, Z. Fisk, and L.H. Greene, “Planar tunneling spectroscopy of the topological surface states in Kondo insulator  $\text{SmB}_6$ ” (Submitted).
4. W.K. Park, C. Asencio, M. Tortello, and L.H. Greene, “Atto-cube based point contact spectroscopy” Reviews of Scientific Instruments (in preparation).
5. J. Levallois, M.K. Tran, D. Pouliot, C. N. Presura, L.H. Greene, J. Eckstein, J. Uccelli, E. Giannini, G.D. Gu, A.J. Leggett, and D. van der Marel, “Temperature-dependent ellipsometry measurements of partial Coulomb energy in superconducting cuprates” Physical Review X (submitted: arXiv:1512.00672).
6. A.V. Burmistrova, I.A. Devyatov, Alexander A. Golubov, Keihi Yada, Yukio Tanaka, M.Tortello, R.S. Gonnelli, V.A. Stephanov, Xiixin Ding, Hai-Hu Wen, and L.H. Greene, “Josephson current in Fe-based superconducting junctions: Theory and experiment” Physical Review B **91**, 214501 (2015).
7. Wei-Cheng Lee, Wan Kyu Park, Hamood Z. Arham, Laura H. Greene, and Philip W. Phillips, “Theory of point contact spectroscopy in correlated electron materials” Proceedings of the National Academy of Sciences (PNAS) **112**, 651-656 (2015).
8. S. Narasiwodeyar, M. Dwyer, M. Liu, W.K. Park, and L.H. Greene, “Two-step fabrication technique of gold tips for use in point-contact spectroscopy” Review of Scientific Instruments **86**, 033903; 1-5 (2015).
9. W.K. Park, S.M. Narasiwodeyar, M. Dwyer, P.C. Canfield, and L.H. Greene, “Hybridization and slow coherence crossover in the intermediate valence compound  $\text{YbAl}_3$  via quasiparticle scattering spectroscopy” arXiv:1411.7073 (Submitted).
10. Laura H. Greene, “Detection of electronic nematicity in Fe pnictides and chalcogenides” Commissioned by Current Opinion in Solid State and Materials Science (COSSMS) for a special issue on Opportunities in Mesoscale Science (In preparation).
11. Laura H. Greene, “Deciphering electron matter in novel superconductors” ASP News Back Page (Op-Ed commissioned by the American Physical Society, to be published in 2016).
12. Laura H. Greene, “Andreev bound state planar tunneling spectroscopy” Review commissioned by Philosophical Transactions A, (in preparation).
13. W.K. Park, H.Z. Arham, C.R. Hunt, and L.H. Greene, “Point contact spectroscopy in the Fe-based superconductors” Review commissioned by Reports on Progress in Physics (in preparation).
14. Hefei Hu, Jo-Hwan Kwon, Mao Zheng, Can Zhang, Laura H. Greene, James N. Eckstein, and Jian-Min Zuo, “Impact of interstitial oxygen on the electronic and magnetic structure in superconducting  $\text{Fe}_{1+y}\text{TeO}_x$  thin films” Physical Review B **90**, 180504(R) (2014).

15. H.Z. Arham, D.E. Bugaris, D.Y. Chung, M.G. Kanatzidis, and L.H. Greene, "Point contact spectroscopy in the superconducting and normal state of  $\text{NaFe}_{1-x}\text{Co}_x\text{As}$ " (Submitted, arXiv:1406.0038).
16. W.K. Park, S.M. Narasimwodeyar, E.D. Bauer, P.H. Tobash, R.E. Baumbach, F. Ronning, J.L. Sarrao, J.D. Thompson, and L.H. Greene, "Hidden order and hybridization gap in  $\text{URu}_2\text{Si}_2$  via quasiparticle scattering spectroscopy" *Philosophical Magazine* **94**, 3737-3746 (2014). DOI: 10.1080/14786435.2014.909613
17. G. Bosse', LiDong Pan, Yize S. Li, L.H. Greene, J. Eckstein, and N.P. Armitage, "Anomalous frequency and temperature dependent scattering and Hund's coupling in the almost quantum critical heavy fermion system  $\text{CeFe}_2\text{Ge}_2$ " *Physical Review Letters* (Submitted, arXiv:1405.4007).
18. H.Z. Arham, C.R. Hunt, J. Gillett, S.D. Das, S.E., Sebastian, D.Y. Chung, M.G. Kanatzidis, and L.H. Greene, "Andreev reflection like enhancement above bulk  $T_c$  in electron underdoped iron arsenides", arXiv:1307.1908v1.
19. Hamood Z. Arham, and Laura H. Greene, "Point contact Spectroscopy of Fe pnictides & chalcogenides in the normal state" *Commissioned Review for Current Opinions in Solid State and Materials Science (COSSMS)*, **17**, 81 (2013).
20. W.K. Park, P. Tobash, F. Ronning, E.D. Bauer, J.L. Sarrao, J.D. Thompson, and L.H. Greene, "Observation of the hybridization gap and Fano resonance in the Kondo lattice  $\text{URu}_2\text{Si}_2$ " *Physical Review Letters* **108**, 246403; 1-5 (2012).
21. G. Bosse', L.S. Bilbro, R. Valdes Aguilar, Li Dong Pan, Wei Liu, A.V. Stier, Y. Li, L.H. Greene, J. Eckstein, and N.P. Armitage, "Low energy electrostatics of the Kondo-lattice antiferromagnet  $\text{CeCu}_2\text{Ge}_2$ " *Physical Review B* **85**, 155105; 1-5 (2012).
22. Hefei Hu, Jian-Min Zuo, Mao Zheng, James N. Eckstein, Wan Kyu Park, Laura H. Greene, Jinsheng Wen, Zhijun Xu, Zhiwei Lin, Qiang Li, and Genda Gu, "Structure of the oxygen annealed  $\text{Fe}_{1.08}\text{Te}_{0.55}\text{Se}_{0.45}\text{O}_x$  superconductor" *Physical Review B* **85**, 064504; 1-6 (2012).
23. H.Z. Arham, C.R. Hunt, W.K. Park, J. Gillett, S.D. Das, S.E. Sebastian, Z. J. Xu, J.S. Wen, Z.W. Lin, Q. Li, G. Gu, A. Thaler, S. Ran, S. L. Bud'ko, P.C. Canfield, D. Y. Chung, M.G. Kanatzidis, and L.H. Greene, "Detection of orbital fluctuations above the structural transition temperature in the iron-pnictides and chalcogenides", *Physical Review B* **85**, 214515; 1-10 (2012).
24. Hefei Hu, J.-M. Zuo, J. Wen, Z.J. Xu, Z. Lin, Q. Li, G. Gu, W.K. Park, and L.H. Greene, "Nanostructure of the Iron Chalcogenide Superconductor  $\text{Fe}_{1+y}\text{Te}_x\text{Se}_{1-x}$ " *Microscopy and Microanalysis* **17**, 1640-1641 (2011). doi:10.1017/S143192761100907X.
25. Laura H. Greene, Hamood Z. Arham, Cassandra R. Hunt, and Wan Kyu Park, "Design of new superconducting materials, and point contact spectroscopy as a probe of strong electronic correlations", *Journal of Superconductivity and Novel Magnetism* **25**, 2121-2126 (2012).
26. H.Z. Arham, C.R. Hunt, W.K. Park, J. Gillett, S.D. Das, S. Sebastian, Z.J. Xu, J.S. Wen, Z.W. Lin, Q. Li, G.D. Gu, A. Thaler, S.L. Bu'dko, P.C. Canfield, and L.H. Greene, "Gap-like feature in the normal state of  $\text{X}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ , X=Ba, Sr and  $\text{Fe}_{1+y}\text{Te}$  revealed by Point Contact Spectroscopy", *Invited Proceedings for LT26, Journal of Physics Conference Series* **400** 022001-6 (2012). doi:10.1088/1742-6596/400/2/022001.
27. C.R. Hunt, W.K. Park, H.Z. Arham, Z.J. Xu, J.S. Wen, Z.W. Lin, Q. Li, G.D. Gu, J. Gillett, S. Sebastian, and L.H. Greene, "Evidence of two superconducting gaps in superconducting Co-doped  $\text{SrFe}_2\text{As}_2$ " (in preparation).
28. Yize Stephanie Li, Mao Zheng, Brian Mulcahy, Laura H. Greene, and James N. Eckstein, "Growth and properties of heavy fermion  $\text{CeCu}_2\text{Ge}_2$  and  $\text{CeFe}_2\text{Ge}_2$  thin films", *Applied Physics Letters* **99**, 042507; 1-3 (2011).
29. Laura H. Greene, "Taming Serendipity" *Physics World* **24**, 41-43 (2011).

30. Hefei Hu, J.M. Zuo, J.S. Wen, Z. J. Xu, Z.W. Lin, Q. Li, Genda Gu, W.K. Park, and L.H. Greene, "Phase separation and chemical inhomogeneity in the iron chalcogenide superconductor  $\text{Fe}_{1+y}\text{Te}_x\text{Se}_{1-x}$ " *New Journal of Physics* **13**, 053031;1-11 (2011).
31. Xin Lu, W.K. Park, Sunmog Yeo, Kyu-Hwan Oh, and Sung-Ik Lee, Sergey L. Bud'ko, Paul C. Canfield, and L.H. Greene, "Point-contact Andreev reflection spectroscopic study of the superconducting gap structure in  $\text{LuNi}_2\text{B}_2\text{C}$ " *Physical Review B* **83**, 104519 (2011).
32. H. Saadaoui, G.D. Morris, Z. Salman, Q. Song, K.H. Chow, M.D. Hossain, C.D.P. Levy, T.J. Parolin, M.R. Pearson, M. Smadella, D. Wang, L.H. Greene, P.J. Hentges, R.F. Kiefl, and W.A. MacFarlane, "Search for the broken time-reversal symmetry near the surface of superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  films using  $\beta$ -detected nuclear magnetic resonance" *Physical Review B* **83**, 054504; 1-5 (2011).
33. Laura H. Greene, "Confronting fraud in science", Book Review of *On Fact and Fraud: Cautionary Tales from the Front Lines of Science* by David Goodstein, *Physics World*, **23**, 42-43 (2010).
34. W.K. Park C.R. Hunt, H.Z. Arham, Z. J. Xu, J.S. Wen, Z.W. Lin, Q. Li, G.D. Gu, and L.H. Greene, "Strong coupling superconductivity in iron-chalcogenide  $\text{FeTe}_{0.55}\text{Se}_{0.45}$ ", arXiv:1005.0190.
35. Mikael Fogelström, W.K. Park, L.H. Greene, G. Goll, and Matthias. J. Graf, "Point-contact spectroscopy in heavy-fermion superconductors" *Physical Review B* **82**, 014527-1 – 12 (2010).
36. Xin Lu, W.K. Park, H.Q. Yuan, G.F. Chen, G.L. Luo, N.L. Wang, A.S. Sefat, M.A. McGuire, R. Jin, B.C. Sales, D. Mandrus, J. Gillett, Suchitra E. Sebastian, and L.H. Greene, "Point-contact spectroscopic studies on normal and superconducting  $\text{AFe}_2\text{As}_2$ -type iron-pnictide single crystals" *Superconductor Science and Technology*, **23**, 054009-1-7 (2010).
37. H. Saadaoui, G.D. Morris, K.H. Chow, M.D. Hossain, C.D.P. Levy, T.J. Parolin, M.R. Pearson, Z. Salman, M. Smadella, Y.-Q. Song, D. Wang, P.J. Hentges, L.H. Greene, R.F. Kiefl, and W.A. MacFarlane, "Search for the time-reversal symmetry breaking in (110)  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$  using  $\beta$ -NMR" *Physica B*, **404**, 724-726, (2009).
38. W.K. Park and L.H. Greene, "Andreev reflection and order parameter symmetry in heavy-fermion superconductors: the case of  $\text{CeCoIn}_5$ " Commissioned Topical Review, *Journal of Physics: Condensed Matter* **21** 103203; 1-15 (2009).
39. Xin Lu, W.K. Park, Ki-Young Choi, Sung-Ik Lee, Sunmog Yeo, Sergey L. Budko, Paul C. Canfield, and L.H. Greene, "Point-contact Andreev reflection tunneling spectroscopic (PCARTS) study of the superconducting gap anisotropy in  $\text{LuNi}_2\text{B}_2\text{C}$ " *Proceedings of the 25<sup>th</sup> International Conference on Low-Temperature Physics (LT-25)*, August 6-13, 2005, Amsterdam, NL, *Journal of Physics: Conference Series (JPCS)* **150**, 052143 (2009).
40. W.K. Park, L.D. Pham, A.D. Bianchi, C. Capan, Z. Fisk, and L.H. Greene, "Point-contact spectroscopy of competing/coexisting orders in Cd-doped  $\text{CeCoIn}_5$ " *Journal of Physics: Conference Series (JPCS)* **150**, 052208 (2009).
41. W.K. Park, E.D. Bauer, J.L. Sarrao, J.D. Thompson and L.H. Greene, "On the origin of the conductance asymmetry in  $\text{CeMIn}_5$  ( $M = \text{Co, Rh, Ir}$ )" *Journal of Physics: Conference Series* **150**, 052207 (2009).
42. W.K. Park, J.L. Sarrao, J.D. Thompson, and L.H. Greene, "Andreev reflection in heavy-fermion superconductors and order parameter symmetry in  $\text{CeCoIn}_5$ " *Physical Review Letters* **100**, 177001-4 (2008).
43. Nigel Goldenfeld, Laura Greene, Miles Klein, Dale Van Harlingen, and Tom Lemberger, "Donald Maurice Ginsberg" *Obituary, Physics Today* **61**, 70 March 2008.
44. Xin Lu, W.K. Park, Jung-Dae Kim, Songmog Yeo, Sung-Ik Lee, and L.H. Greene, "Point-contact Andreev Reflection spectroscopic study of the superconducting gap structure in  $\text{LuNi}_2\text{B}_2\text{C}$ ", *Proceedings of the International Conference on Strongly Correlated Electron Systems, Physica B* **403**, 1098-1100 (2008).



45. W.K. Park, H. Stalzer, J.L. Sarrao, J.D. Thompson, L. Pham, J. Frederick, P. Canfield, and L.H. Greene, "Point-contact Andreev reflection spectroscopy of heavy-fermion-metal/ superconductor junctions" *Physica B* **403**, 818-819 (2008).
46. W.K. Park, J.L. Sarrao, J.D. Thompson, L. Pham, Z. Fisk, and L.H. Greene, "Andreev reflection spectroscopy of the pure and Cd-doped heavy-fermion superconductor CeCoIn<sub>5</sub>: Detecting order parameter symmetry and competing phases" *Physica B* **403**, 731-734 (2008).
47. Laura H. Greene, " 'Key issues' articles in Reports on Progress in Physics" *Reports on Progress in Physics* **70**, 1 (2007).
48. Wan Kyu Park, Laura H. Greene, John L. Sarrao, Joe D. Thompson, "Andreev reflection spectroscopy of the heavy-fermion superconductor CeCoIn<sub>5</sub> along three different crystallographic orientations" *Physica C* **460-462**, 206-209 (2007).
49. L.H. Greene, P.J. Hentges, W.K. Park, G. Westwood, M.M. Pafford and W. G. Klemperer, "Studies of the Zero-Bias Conductance Peak (ZBCP) in thin-film superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> planar tunnel junctions: Detection and modeling of ZBCP splittings" *American Institute of Physics (AIP) Conference Proceedings* **850**, 467-468 (2006).
50. Wan Kyu Park, Laura H. Greene, John L. Sarrao and Joe D. Thompson, "Andreev reflection at the normal-metal / heavy-fermion superconductor CeCoIn<sub>5</sub> interface by point-contact spectroscopy" *American Institute of Physics (AIP) Conference Proceedings* **850**, 715-716 (2006).
51. L.H. Greene, "Fabricate!" (Musical parody), *APS News*, March 2006 (<http://www.aps.org/apsnews/0506/050607.cfm>).
52. L.H. Greene, "Fabricate!" (Musical parody), *Nature Physics News Blog*, March 15, 2006. ([http://blogs.nature.com/news/blog/2006/03/aps\\_the\\_physicists\\_sang\\_along.html](http://blogs.nature.com/news/blog/2006/03/aps_the_physicists_sang_along.html))
53. L.H. Greene, W.K. Park, J.L. Sarrao and J.D. Thompson, "Point-contact spectroscopy of CeCoIn<sub>5</sub>: Andreev reflection studies of the normal-metal–heavy-fermion superconductor interface" *Physica B* **378-380**, 671-672 (2006).
54. L.H. Greene, "High-temperature superconductors: Playgrounds for broken symmetries" *Proceedings of the 2<sup>nd</sup> International Union of Pure and Applied Physicists (IUPAP) Conference on Women in Physics, May 23 – 25, 2005, Rio de Janeiro, Brazil*, Beverly Karplus Hartline and Ariel Michelman-Ribeiro, eds. (American Institute of Physics, 2005) pp 70-79.
55. W.K. Park and L.H. Greene, "Comment on "Spectroscopic evidence for multiple order parameter components in the heavy fermion superconductor CeCoIn<sub>5</sub>" *Physical Review Letters* **96**, 259702 (2006).
56. W.K. Park, L.H. Greene, J.L. Sarrao and J.D. Thompson, "Suppressed Andreev reflection at the normal-metal / heavy-fermion superconductor CeCoIn<sub>5</sub> interface" in *Strongly Correlated Electron Materials: Physics and Nanoengineering*, edited by Ivan Bozovic and Davor Pavuna, *Proceedings of SPIE 5932* (SPIE, Bellingham, WA, 2005), 59321Q-1-13, (cond-mat/0507353).
57. W.K. Park and L.H. Greene, "Construction of a Cantilever-Andreev-Tunneling rig and its applications to superconductors" *Review of Scientific Instruments* **77**, 023905 (2006).
58. L.H. Greene, "Data Dips and Peaks" *Physics Today* **58**, 58 (2005).
59. W.K. Park, L.H. Greene, J.L. Sarrao and J.D. Thompson, "Andreev reflection at the normal-metal/heavy-fermion superconductor CeCoIn<sub>5</sub> interface", *Physical Review B* **72**, 052509-1-4 (2005).
60. G.D. Morris, W.A. MacFarlane, K.H. Chow, Z. Salman, D.J. Arseneau, S. Daviel, A. Hatakeyama, S.R. Kreitzman, C.D.P. Levy, R. Poutissou, R. H. Heffner, J. E. Elenewski, L.H. Greene, and R.F. Kiefl, "Depth-controlled  $\beta$ -NMR of <sup>8</sup>Li in a thin silver film" *Physical Review Letters* **93**, 157601-1-4 (2004).
61. Laura H. Greene, Patrick J. Hentges, Walter G. Klemperer, Jian-Guo Wen, Glenn Westwood, "Solution deposition of ultrathin zirconia films on YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7- $\delta$</sub>  by molecular layering of tetra-n-propyl zirconate" *Journal of Materials Chemistry* **14**, 3158-3166 (2004).

62. L.H. Greene, P.J. Hentges, H. Aubin, M. Aprili, E. Badica, M. Covington, M.M. Pafford, G. Westwood, W. G. Klemperer, Sha Jian and D.G. Hinks, "Detection and control of broken symmetries with Andreev bound state planar tunneling spectroscopy: Effects of atomic-scale disorder" *Physica C* **408-410**, 804-806 (2004).
63. P.J. Hentges, L.H. Greene, G. Westwood and W. G. Klemperer, "Planar tunneling spectroscopic studies of splitting vs. non-splitting of the zero-bias conductance peak in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  thin films" *Physica C* **408-410**, 801-803 (2004).
64. J. J. Tu, C. C. Homes, L.H. Greene, G.D. Gu, and M. Strongin, "The absence of superfluid response in ac and bc-plane optical conductivities of optimally-doped  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$  single crystals in the surface region" (arXiv:cond-mat/0307582v1).
65. D. N. Basov, S. V. Dordevic, E. J. Singley, W. J. Padilla, K. Burch, J. E. Elenewski, L.H. Greene and J. Morris, "Subterahertz spectroscopy at He-3 temperatures" *Review of Scientific Instruments* **74**, 4703 – 4710 (2003).
66. L.H. Greene, P. Hentges, H. Aubin, M. Aprili, E. Badica, M. Covington, M.M. Pafford, G. Westwood, W. G. Klemperer, Sha Jian and D.G. Hinks, "Planar tunneling spectroscopy of high-temperature superconductors: Andreev bound states and broken symmetries" *Physica C* **387**, 162-168 (2003).
67. Ivan K. Schuller, Arun Bansil, Dimitri N. Basov, Malcolm R. Beasley, Juan C. Campuzano, Jules P. Carbotte, Robert J. Cava, George Crabtree, Robert C. Dynes, Douglas Finnemore, Theodore H. Geballe, Kenneth Gray, Laura H. Greene, Bruce N. Harmon, David C. Larbalestier, Donald Liebenberg, M. Brian Maple, William T. Oosterhuis, Douglas J. Scalapino, Sunil K. Sinha, Zhixun Shen, James L. Smith, Jerry Smith, John Tranquada, Dale J. van Harlingen, David Welch, "A snapshot view of high temperature superconductivity 2002", Report to the Department of Energy, Basic Energy Sciences: <http://ischuller.ucsd.edu/notes.php>. (2002)
68. P.J. Hentges, H. Aubin, L.H. Greene, W. G. Klemperer and G. Westwood, "Solution-growth of ultra-thin, insulating layers of zirconia for passivation and tunnel junction fabrication on YBCO Thin Films" *IEEE Transactions on Applied Superconductivity* **13**, 801-804 (2003).
69. R.F. Kiefl, W.A. MacFarlane, P. Amaudruz, D. Arseneau, R. Baartman, T.R. Beals, J. Behr, J. Brewer, S. Daviel, A. Hatakeyama, B. Hitti, S.R. Kreitzman, C.D.P. Levy, R. Miller, M. Olivo, R. Poutissou, G.D. Morris, S.R. Dunsiger, R. Heffner, K.H. Chow, Y. Hirayama, H. Izumi, C. Bommas, E. Dumont and L.H. Greene, "Low energy spin polarized radioactive beams as a probe of thin films and interfaces" *Nuclear Instruments and Methods in Physics Research Section B: Interactions with Materials and Atoms* **204**, 682-688 (2003).
70. R.F. Kiefl, W.A. MacFarlane, G.D. Morris, P. Amaudruz, D. Arseneau, H. Azumi, R. Baartman, T.R. Beals, J. Behr, C. Bommas, J. H. Brewer, K.H. Chow, E. Dumont, S.R. Dunsiger, S. Daviel, L. Greene, A. Hatakeyama, R. H. Heffner, Y. Hirayama, B. Hitti, S.R. Kreitzman, C.D.P. Levy, R.I. Miller, M. Olivo and R. Poutissou, "Low-energy spin-polarized radioactive beams as a nano-scale probe of matter" *Physica B* **326**, 189-195 (2003).
71. W.A. MacFarlane, G.D. Morris, K.H. Chow, R.A. Baartman, S. Daviel, S.R. Dunsiger, A. Hatakeyama, S.R. Kreitzman, C.D.P. Levy, R.I. Miller, K.M. Nichol, R. Poutissou, E. Dumont, L.H. Greene and R.F. Kiefl, "Quadrupolar split  $^8\text{Li}$   $\beta$ -NMR in  $\text{SrTiO}_3$ " *Physica B* **326**, 209-212 (2003).
72. I.V. Roshchin, A.C. Abeyta, L.H. Greene, T. Tanzer, J.F. Dorsten, P.W. Bohn, S.-W. Han, P.F. Miceli and J.F. Klem, "Observation of the superconducting proximity effect in  $\text{Nb}/\text{InAs}$  and  $\text{NbN}_x/\text{InAs}$  by raman scattering" *Physical Review B* **66**, 134530 (2002).
73. H. Aubin, L.H. Greene, S. Jian and D.G. Hinks, "Andreev bound states at the onset of phase coherence in  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_2$ " *Physical Review Letters* **89**, 177001 (2002).
74. S.-W. Han, S. Tripathy, P.F. Miceli, E. Badica, M. Covington, M. Aprili and L.H. Greene, "X-ray reflectivity study of interdiffusion at  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  and metal interfaces", *Japanese Journal of Applied Physics* **42**, 1395-1399 (2003).

75. L.H. Greene, M. Aprili, M. Covington, E. Badica, D.E. Pugel, H. Aubin, Y.-M. Xia and M.B. Salamon, Sha Jian and D.G. Kinks, "Andreev bound state tunneling and ESR spectroscopy of high-temperature superconductors and observations of broken time-reversal symmetry" *Journal of Superconductivity* **13**, 703-708 (2000).
76. S.-W. Han, J. Farmer, H. Kaiser, P.F. Miceli, I.R. Roshchin and L.H. Greene, "Orientation of vortices in a superconducting thin film: Quantitative comparison of spin-polarized neutron reflectivity and magnetization" *Physical Review B* **62**, 9784-9790 (2000).
77. E. Badica, M. Aprili, M. Covington and L.H. Greene, "Andreev bound state tunneling: Spectroscopy of unconventional superconductivity", SPIE Invited Proceedings, "Superconducting and Related Oxides: Physics and Nanoengineering IV" Davor Pavuna and Ivan Bozovic, editors, SPIE Proceedings, SPIE, Bellingham **4058**, 52-59 (2000).
78. H. Aubin, D.E. Pugel, E. Badica, L.H. Greene, Sha Jain and D.G. Hinks, "In-plane quasi-particle tunneling into  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ ", *Physica C* **341-348**, 1681-1682 (2000).
79. D.E. Pugel, Yao-Min Xia, M.B. Salamon and L.H. Greene, "Effects of the target-to-substrate angle on off-axis sputter deposition and EPR studies of near-surface magnetic properties of YBCO thin films" *Physica C* **341-348**, 2003-2004 (2000).
80. L.H. Greene, M. Aprili, M. Covington, E. Badica, D.E. Pugel, H. Aubin, Y. -M. Xia, M.B. Salamon, Sha Jain and D.G. Hinks, "Spectroscopy of the Andreev bound state of high-temperature superconductors: Measurements of quasiparticle scattering, anisotropy and broken time-reversal symmetry" *Physica C* **341-348**, 1633-1637 (2000).
81. M. Covington and L.H. Greene, "Planar tunneling spectroscopy of  $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$  thin films as a function of crystallographic orientation" *Physical Review B* **62**, 12440 (2000).
82. M. Aprili, M. Covington, E. Badica and L.H. Greene, "Doppler-shift of the surface bound states in YBCO" *Physica B* **284** (Part 2), 1864-1865 (2000).
83. L.H. Greene, M. Covington, M. Aprili, E. Badica and D.E. Pugel, "Observation of broken time-reversal symmetry with Andreev bound state tunneling spectroscopy" *Physica B* **280** (Part 1), 159-164 (2000).
84. T. Tanzer, D. Maier, P.W. Bohn, I.V. Roshchin and L.H. Greene, "Ion-etch produced damage on InAs(100) studied through collective-mode electronic Raman scattering" *Journal of Vacuum Science and Technology B* **18**, 144-149 (2000).
85. M. Aprili, E. Badica and L.H. Greene, "Doppler shift of the Andreev bound states at the YBCO surface", *Physical Review Letters* **83**, 4630-4633 (1999).
86. T.A. Tanzer and P.W. Bohn, I.V. Roshchin, L.H. Greene and J.F. Klem, "Near-surface electronic structure on InAs (100) modified with self-assembled monolayers of alkanethiols, *Applied Physics Letters* **75**, 2794-2796, (1999).
87. D.E. Pugel and L.H. Greene, "Influence of target-substrate angle on the elemental concentration of c-axis  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  thin films" *Applied Physics Letters* **75**, 1589-1591 (1999).
88. S.-W. Han, J.F. Anker, H. Kaiser, P.F. Miceli, E. Paraoanu and L.H. Greene, "Spin-polarized neutron reflectivity: A probe of vortices in thin film superconductors" *Physical Review B* **59**, 14 692-14 696 (1999).
89. L.H. Greene, M. Covington, M. Aprili and E. Paraoanu, "Tunneling into high-temperature superconductors: Andreev bound states and broken time-reversal symmetry" *Solid State Communications* **107**, 649-656 (1998).
90. L.H. Greene, M. Covington, M. Aprili, and E. Paraoanu, "Tunneling into Andreev bound states of  $\text{YBa}_2\text{Cu}_3\text{O}_7$ : Observation of broken time-reversal symmetry", *The Journal of Physics and Chemistry of Solids* **59**, 2021-2025, (1998).

91. A.V. Pronin, M. Dressel, A. Pimenov, A. Loidl, I.V. Roshchin, and L.H. Greene, "Direct observation of the superconducting energy gap developing in the conductivity spectra of niobium" *Physical Review B* **57**, 14,416 (1998)
92. M. Aprili, M. Covington, E. Paraoanu, B. Niedermeyer, and L.H. Greene, "Tunneling spectroscopy of the quasiparticle Andreev bound state in ion-irradiated  $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{Pb}$  junctions" *Physical Review B* **57**, R8139-8142 (1998).
93. K.-W Chang, B.W. Wessels, D.B. Studebaker, T.J. Marks, J. Schindler, C. Kannerurf, M. Aprili, and L. Greene "Growth and properties of  $\text{Sr}_2\text{CuO}_2(\text{CO}_2)$  thin films prepared from metal-organic chemical vapor deposition-derived precursor films" *Physica C* **291**, 242-248 (1997).
94. M. Covington, M. Aprili, E. Paraoanu, L.H. Greene, F. Xu, J. Zhu, and C.A. Mirkin "Observation of surface-induced broken time-reversal symmetry in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  tunnel junctions" *Physical Review Letters*, **79**, 277 (1997). This Letter appeared in conjunction with a theory Letter: M. Fogelström, D. Rainer, and J.A. Sauls "Tunneling into current-carrying surface states of high  $T_c$  superconductors" *Physical Review Letters* **79**, 281 (1997).
95. L.H. Greene, J.F. Dorsten, I.V. Roshchin, A.C. Abeyta, T.A. Tanzer, G. Kuchler, W.L. Feldmann, and P.W. Bohn, "Raman scattering as a probe of the superconducting proximity effect", Plenary Proceedings of the XXI International Conference on Low-Temperature Physics (LT21), Prague, Czech Republic, August 8-14, 1996. *Czechoslovak Journal of Physics* **46**, 3115-3122 (1996).
96. M. Covington, F. Xu, C.A. Mirkin, W.L. Feldmann, and L.H. Greene, "Tunneling spectroscopy of superconducting  $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$  thin films", *Czechoslovak Journal of Physics* **46**, 1341 (1996).
97. L.H. Greene, J.F. Dorsten, I.V. Roshchin, A.C. Abeyta, T.A. Tanzer, W.L. Feldmann, P.W. Bohn, "Optical detection of the superconducting proximity effect: Raman scattering on  $\text{Nb}/\text{InAs}$ ", Proceedings of the XXI International Conference on Low-Temperature Physics (LT-21), Prague, Czech Republic, August 8-14, 1996. *Czechoslovak Journal of Physics* **46**, 741 (1996).
98. R. Delbourgo and L.H. Greene, "Lorella M. Jones - Obituary" *Physics Today* **48**, 90 (1995). This was also published in the NY Times.
99. P. Eisenberger, S. Solomon, K. Gottfried, R. Byer, G. Lubkin, E. Moniz, L. Greene, D. Langenberg, I. Goodwin, and D. Moore "Roundtable - Whither now our research universities" *Physics Today* **48**, 42 (1995).
100. M. Covington and L.H. Greene, "Tunneling into superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_7$  thin films: Evidence for a gap-like scaling with  $T_c$ ", in *Spectroscopic Studies of Superconductors*, Ivan Bozovic and Dirk van der Marel, editors (SPIE Proceedings # 2696, SPIE, Bellingham, 1996) p. 2696.
101. L.H. Greene, A. Abyeta, I.V. Roshchin, I.K. Robinson, J. Dorsten, T.A. Tanzer, and P.W. Bohn, "Optical detection of the superconducting proximity effect" in *Spectroscopic Studies of Superconductors*, Ivan Bozovic and Dirk van der Marel, editors (SPIE Proceedings # 2696, SPIE, Bellingham, 1996) pp 215-222.
102. M. Covington, R. Scheuerer, K. Bloom, and L.H. Greene, "Tunneling and anisotropic charge transport and properties of superconducting (110)-oriented  $\text{YBa}_2\text{Cu}_3\text{O}_7$  thin films" *Applied Physics Letters* **68**, 1717-1719 (1996).
103. S.-W. Han, J.A. Pitney, P.F. Miceli, M. Covington, L.H. Greene, M.J. Godbole, and D.L. Lowndes, "X-ray reflectivity of thin film oxide superconductors" *Physica B* **221**, 235-237 (1996).
104. N. Hass, M. Covington, W.L. Feldmann, L.H. Greene, and M. Johnson, "Transport properties of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ /ferromagnetic interfaces" *Physica C* **235**, 1905-1906 (1994).
105. J. Lesueur, L.H. Greene, W.L. Feldmann, and A. Inam, "Zero bias anomalies in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  tunnel junctions" *Physica C* **191**, 325-332 (1992).
106. A. Kastalsky, A.W. Kleinsasser, L.H. Greene, R. Bhat, P. P. Milliken, and J. P. Harbison, "Observation of pair currents in superconductor-semiconductor contacts" *Physical Review Letters* **67**, 3026-3029 (1991).

107. L.H. Greene, B.G. Bagley, W.L. Feldmann, J. B. Barner, F. Shokoohi, P.F. Miceli, B.J. Wilkins, V. Pendrick, D. Kalokitis, and A. Fathy, "Off-axis sputter deposition of  $\text{YBa}_2\text{Cu}_3\text{O}_7$  films for microwave applications" *Applied Physics Letters* **59**, 1629-1631 (1991).
108. L.H. Greene, J. Lesueur, W.L. Feldmann, and A. Inam, "Superconductive tunneling in  $\text{YBa}_2\text{Cu}_2\text{O}_7$  thin films: Dependence upon crystallographic orientation" in *High Temperature Superconductivity: Physical Properties, Microscopic Theory and Mechanisms*, J. Ashkenazi, S.E. Barns, F. Zuo, G. C. Vezzoli and B. M. Klein, eds., (Plenum Press, New York, 1991) pp. 137-146.
109. L.H. Greene, J. Lesueur, W.L. Feldmann, A. Inam, and B.G. Bagley, "Optimizing tunneling and Josephson effects via growth morphology in  $\text{YBa}_2\text{Cu}_3\text{O}_7$  films, and a microwave device" in *Proceedings of the International Superconductor Applications Convention: SC GLOBAL 90*, January 14-17, 1991, San Diego, CA.
110. A. Kastalsky, L.H. Greene, R. Bhat, and J. P. Harbison, "Superconductive tunneling in Nb on InGaAs/InP/InGaAs heterostructures" in the *Proceedings of the 20<sup>th</sup> International Conference on the Physics of Semiconductors*, August, 1990, Thessaloniki, Greece (World Scientific Publishing Co.).
111. L.H. Greene, A. Kastalsky, J.B. Barner, and R. Bhat, "Superconductive proximity-effects in Nb on InGaAs-Based heterostructures" *Physica B* **165-166**, 1573-1574 (1990).
112. B.G. Bagley, L.H. Greene, W.L. Feldmann, J.B. Barner, L.A. Farrow, P.F. Miceli, R. Ramesh, S.A. Khan, P. Barboux, and J.-M. Tarascon, "The preparation of thin and thick films for microelectronic applications" in *Proceedings of SC GLOBAL 90; International Superconductor Applications Convention*, January 17-19, 1990, Long Beach, CA.
113. L.H. Greene, W.L. Feldmann, J.B. Barner, L.A. Farrow, P.F. Miceli, R. Ramesh, B.J. Wilkens, B.G. Bagley, M. Giroud, and J.-M. Rowell, "Proximity effect and tunneling in  $\text{YBa}_2\text{Cu}_3\text{O}_7$ /metal layered structures in high-temperature superconductors: Fundamental properties and novel materials processing, D. Christen, J. Narayan, and L.F. Schneemeyer, eds. (Materials Research Society, Pittsburgh, 1990) pp. 991-998.
114. A. Kastalsky, L.H. Greene, J.B. Barner, and R. Bhat, "Proximity-effect superconductive tunneling in Nb on InGaAs/InP/InGaAs heterostructures" *Physical Review Letters* **64**, 958-961 (1990).
115. L.H. Greene and B.G. Bagley, "Oxygen stoichiometric effects and related atomic substitutions in the high- $T_c$  cuprates" in *Physical Properties of High Temperature Superconductors II*, D. M. Ginsberg, ed. (World Scientific Press, Singapore, 1990) pp. 509-569.
116. L.A. Farrow, Siu-Wai Chan, L.H. Greene, W.L. Feldmann, T. Venkatesan, W.A. Bonner, R.R. Krchnavek, and S.J. Allen, "Raman spectroscopy diagnostics for high- $T_c$  thin films", in *SPIE Vol. 1187: Processing of films for High-Tc Superconducting Electronics*, T. Venkatesan, A.C. Anderson, Y. Bando, M. Gurvitch, and X. Wu, eds. (Society of Photo Optical Instrumentation Engineers, 1990) pp. 282-288.
117. J.-M. Tarascon, E. Wang, L.H. Greene, B.G. Bagley, G.W. Hull, P.F. Miceli, Z.-Z. Wang, D. Brawner, and N.-P. Ong, "On the crystal growth and chemistry of the new electron-type superconducting Oxides" *Physica C* **162-164**, 285-290 (1989).
118. P.F. Miceli, J.-M. Tarascon, L.H. Greene, J.J. Rhyne, and D.A. Neumann, "Magnetic ordering in  $\text{YBa}_2\text{Cu}_{3-x}\text{M}_x\text{O}_{6+y}$ " *Physica C* **162-164**, 1267-1268 (1989).
119. L.H. Greene, J.B. Barner, W.L. Feldmann, L.A. Farrow, P.F. Miceli, R. Ramesh, B.J. Wilkins, B.G. Bagley, J.-M. Tarascon, J.H. Wernick, M. Giroud, and J.-M. Rowell, "Studies of proximity-effect and tunneling in YBCO/metal layered films" *Physica C* **162-164**, 1069-1070 (1989).
120. P.F. Miceli, J.-M. Tarascon, L.H. Greene, P. Barboux, J.D. Jorgensen, J.J. Rhyne, and D.A. Neumann, "Charge transfer and bond lengths in  $\text{YBa}_2\text{Cu}_{3-x}\text{M}_x\text{O}_{6+y}$ , in high temperature superconductors: Relationships between properties, structure and solid state chemistry, J.D. Jorgensen, K. Kitazawa,

- J.-M. Tarascon, M.S. Thompson, and J.B. Torrance, eds., (Materials Research Society, Pittsburgh, 1989) pp. 119-125.
121. P.F. Miceli, J.-M. Tarascon, B.G. Bagley, L.H. Greene, P. Barboux, G.W. Hull, M. Giroud, J.J. Rhyne, and D.A. Neumann, "Magnetic properties of some high- $T_c$  superconducting compounds" in *High Temperature Superconductivity* (Progress in High-Temperature Superconductivity - Vol. 20); Proceedings of the Xth Winter Meeting on Low Temperature Physics - Cocoyoc, Morelos, Mexico, Jan 15-18, 1989, T. Akachi, J.A. Cogordam, and A.A. Valladares, eds. (World Scientific Publishing Co., Singapore, 1989) pp. 89-102.
  122. E. Wang, J.-M. Tarascon, L.H. Greene, B.G. Bagley, G.W. Hull, and W.R. McKinnon, "Cationic substitution and the role of oxygen in the n-type superconducting  $T'$  system  $Nd_{2-y}Ce_yCuO_z$ " *Physical Review B* **41**, 6582-6590 (1990).
  123. R. Ramesh, E. Wang, L.H. Greene, M.S. Hedge, J.-M. Tarascon, and Y. Kim, "Electron microscopy of the Pb-Sr-Ca-Er-Cu-O superconductor" *Journal of Materials Research* **5**, 251-257 (1990).
  124. J.-M. Tarascon, E. Wang, L.H. Greene, B.G. Bagley, G.W. Hull, S.M. D'Egidio, P.F. Miceli, Z.-Z. Wang, T.W. Jing, J. Clayhold, D. Brawner, and N.-P. Ong, "Growth, structural and physical properties for superconducting  $Nd_{2-x}Ce_xCuO_4$ " *Physical Review B* **40**, 4494-4504 (1989).
  125. P.F. Miceli, J.-M. Tarascon, P. Barboux, L.H. Greene, B.G. Bagley, G.W. Hull, and M. Giroud, "Magnetic Transitions in the System  $YBa_2Cu_{2.8}Co_{0.2}O_{6+x}$ " *Physical Review B* **39**, 12375-12378 (1989).
  126. J.-M. Tarascon, P.F. Miceli, P. Barboux, D.-M. Hwang, G.W. Hull, M. Giroud, L.H. Greene, Y. LePage, W.R. McKinnon, E. Tselepis, G. Pleizier, M. Eibschutz, D.A. Neumann, and J.J. Rhyne, "Structure and magnetic properties of non-superconducting doped Co and Fe  $Bi_2Sr_2Cu_{1-x}M_xO_y$  phases" *Physical Review B* **39**, 11587-11598 (1989).
  127. J.-M. Tarascon, R. Ramesh, P. Barboux, M.S. Hegde, G.W. Hull, L.H. Greene, M. Giroud, Y. LePage, W.R. McKinnon, J.V. Waszczak, and L.F. Schneemeyer, "New non-superconducting layered bi-oxide phases of formula  $Bi_2M_3Co_2O_y$  containing Co instead of Cu" *Solid State Communications* **71**, 663-669 (1989).
  128. L.H. Greene, J.-M. Tarascon, P.F. Miceli, B.G. Bagley, P. Barboux, M. Giroud, G.W. Hull, Y. LePage, W.R. McKinnon, J.J. Rhyne, and D.A. Neumann, "Recent magnetic and structural studies of the high- $T_c$  cuprates at Bellcore" in Proceedings for SC-GLOBAL-89; International Superconductor Applications Convention, San Francisco, CA, V. Nurenberg, ed., January 11-13, 1989.
  129. J.-M. Tarascon, P. Barboux, G.W. Hull, R. Ramesh, L.H. Greene, M. Giroud, M.S. Hegde, and W.R. McKinnon, "Bismuth cuprate high- $T_c$  superconductors using cationic substitution", *Physical Review* **39**, 4316-4326 (1989).
  130. J.-M. Tarascon, W.R. McKinnon, B. Barboux, D.-M. Hwang, B.G. Bagley, L.H. Greene, G.W. Hull, Y. LePage, N. Stoffel, and M. Giroud, "Preparation, structure and properties of the superconducting compound series  $Bi_2Sr_2Ca_{n-1}Cu_nO_y$  with  $n=1, 2$ , and  $3$ " *Physical Review B* **38**, 8885-8892 (1988).
  131. B.G. Bagley, L.H. Greene, P. Barboux, J.-M. Tarascon, T. Venkatesan, E.W. Chase, Siu-Wai Chan, W.L. Feldmann, B.J. Wilkens, S.A. Khan, and M. Giroud, "The preparation, processing and properties of thin and thick Films for microelectronic applications" in *Advances in Superconductivity* K. Kitazawa and I. Ishiguro, eds. (Springer-Verlag, Tokyo, 1989) pp. 477-482.
  132. L.A. Farrow, Siu-Wai Chan, L.H. Greene, and W.L. Feldmann, "Raman scattering as a contactless room-temperature test of the quality of  $YBa_2Cu_3O_{7-x}$  thin films", *Journal of Applied Physics* **66**, 2381-2383 (1989).
  133. J.-M. Tarascon, P. Barboux, P.F. Miceli, B.G. Bagley, L.H. Greene, G.W. Hull, and M. Giroud, "Synthesis and chemistry of the new Y-based and Bi-based high temperature superconducting perovskites" *Journal de Physique C* **8**, 2081-2086 (1988).

134. P.F. Miceli, J.-M. Tarascon, L.H. Greene, P. Barboux, M. Giroud, D.A. Neumann, J.J. Rhyne, L.F. Schneemeyer, and J.V. Waszczak, "Antiferromagnetic Order in  $\text{YBa}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{6+y}$ " *Physical Review B*, **38**, 9209-9212 (1988).
135. Siu-Wai Chan, B.G. Bagley, L.H. Greene, M. Giroud, W.L. Feldmann, K.R. Jenkins II, and B.J. Wilkens, "Effect of the post-deposition processing ambient on the preparation of superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  coevaporated thin films using a  $\text{BaF}_2$  Source", *Applied Physics Letters* **53**, 1443-1445 (1988).
136. J.-M. Tarascon, P. Barboux, L.H. Greene, B.G. Bagley, P.F. Miceli, and G.W. Hull, "The synthesis, structures and properties of doped Y-Ba-Cu-M-O and Bi-Sr-Ca-Cu-O high-  $T_c$  phases" in *High-Temperature Superconductivity: The First Two Years*, R. M. Metzger, ed. (Gordon and Breach, NY, 1989), pp. 199-216.
137. P.A. Morris, W.A. Bonner, B.G. Bagley, G.W. Hull, N.G. Stoffel, L.H. Greene, B. Meagher, and M. Giroud, "Growth of high  $T_c$  superconducting  $\text{Bi}_4(\text{Ca},\text{Sr})_6\text{Cu}_4\text{O}_{16+x}$  crystals" *Applied Physics Letters* **53**, 249-251 (1988).
138. P. Barboux, J.-M. Tarascon, B.G. Bagley, L.H. Greene, and G.W. Hull, "Thick films of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$  from aqueous gels" in *High-Temperature Superconductors II*, D.W. Capone, W.H. Butler, B. Batlogg, and C.-W. Chu, eds. (Materials Research Society, Pittsburgh, 1988) pp. 211-213.
139. L.A. Farrow, L.H. Greene, J.-M. Tarascon, P.A. Morris, W.A. Bonner, and G.W. Hull, "Raman scattering from the  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+y}$  superconductor" *Physical Review* **33B**, 752-753 (1988).
140. P.F. Miceli, J.-M. Tarascon, L.H. Greene, and P. Barboux, "Neutron powder diffraction studies of  $\text{YBaCuMO}$  alloys", *Bulletin of the American Physical Society* **33**, 347 (1988).
141. J. Clayhold, Z.-Z. Wang, N.-P. Ong, J.-M. Tarascon, L.H. Greene, and P. Barboux, "Hall-effect in  $\text{YBa}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{7-y}$  vs. co concentration", *Bulletin of the American Physical Society* **33**, 258 (1988).
142. L.H. Greene, "Doping of high- $T_c$  superconductors on the Cu-sites", *Bulletin of the American Physical Society* **33**, 212-213 (1988).
143. J.-M. Tarascon, P. Barboux, L.H. Greene, B.G. Bagley, G.W. Hull, Y. LePage, and W.R. McKinnon, "Preparation, structure and properties of the high  $T_c$  Bi-based and Y-based cuprates", *Physica C* **153-155**, 566-571 (1988).
144. L.H. Greene, M. Giroud, B.G. Bagley, J.-M. Tarascon, P. Barboux, P.F. Miceli, and G.W. Hull, "Tunneling attempts in single-phase  $\text{Bi}_4\text{Sr}_3\text{Ca}_3\text{Cu}_4\text{O}_{16+y}$  and chemical doping on the Cu-sites in 90K and 40K superconductors" *Physica C* **153-155**, 896-897 (1988).
145. J.-M. Tarascon, Y. LePage, L.H. Greene, B.G. Bagley, P. Barboux, D.-M. Hwang, G.W. Hull, W.R. McKinnon, and M. Giroud, "Origin of the 110-K superconducting transition in the Bi-Sr-Ca-Cu-O system", *Physical Review B* **38**, 2504-2508 (1988).
146. J.-M. Tarascon, Y. LePage, P. Barboux, B.G. Bagley, L.H. Greene, W.R. McKinnon, G.W. Hull, M. Giroud, and D.-M. Hwang, "Crystal substructure and physical properties of the superconducting phase  $\text{Bi}_4(\text{Sr},\text{Ca})_6\text{Cu}_4\text{O}_{16+x}$ " *Physical Review B* **37**, 9382-9389 (1988).
147. J.-M. Tarascon, P. Barboux, B.G. Bagley, L.H. Greene, and G.W. Hull, "On synthesis of high- $T_c$  superconducting perovskites", *Materials Science and Engineering* **B1**, 29-36 (1988).
148. J.-M. Tarascon, P. Barboux, P.F. Miceli, L.H. Greene, G.W. Hull, M. Eibschutz, and S.A. Sunshine, "Structural and physical properties of the metal (M) substituted  $\text{YBa}_2\text{Cu}_{3-x}\text{M}_x\text{O}_{7-y}$  perovskite" *Physical Review B* **37**, 7458-7469 (1988).
149. P.F. Miceli, J.-M. Tarascon, L.H. Greene, P. Barboux, F.J. Rotella, and J.D. Jorgensen, "Role of bond lengths in the 90-K superconductor: A neutron powder diffraction study of  $\text{YBa}_2\text{Cu}_{3-x}\text{Co}_x\text{O}_{7-y}$ ", *Physical Review B* **37**, 5932-5935 (1988).

150. W.R. McKinnon, M.L. Post, L.S. Selwyn, G. Pleizier, J.-M. Tarascon, P. Barboux, L.H. Greene, and G.W. Hull, "Oxygen intercalation in the perovskite superconductor  $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ " *Physical Review B* **38**, 6543-6551 (1988).
151. J.-M. Tarascon, P. Barboux, L.H. Greene, G.W. Hull, and B.G. Bagley, "3d-metal doping (Fe, Co, Ni, Zn) of the high  $T_c$  perovskite  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$ " in *High Temperature Superconductors*, M.N. Brodsky, R.C. Dynes, H.L. Tuller, and K. Kitazawa, eds. (Materials Research Society, Pittsburgh, PA, 1988), pp. 523-526.
152. P. Barboux, J.-M. Tarascon, B.G. Bagley, L.H. Greene, G.W. Hull, and B.W. Meagher, "The preparation of bulk and thick films of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$  using solution techniques" in *High Temperature Superconductors*, M.B. Brodsky, R.C. Dynes, H.L. Tuller, and K. Kitazawa, eds., (Materials Research Society, Pittsburgh, PA, 1988) pp. 49-55.
153. Siu-Wai Chan, L.H. Greene, W.L. Feldmann, P.F. Miceli, and B.G. Bagley, "The preparation of superconducting thin films of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$  by co-evaporation with electron-beam/thermal sources" in *Thin Film Processing and Characterization of High-Temperature Superconductors*, J. E. Harper, R. J. Colton and L.C. Feldmann, eds. (American Institute of Physics, New York, 1988), pp. 28-35.
154. J.-M. Tarascon, P. Barboux, B.G. Bagley, L.H. Greene, and G.W. Hull, "Fabrication and physical properties of  $\text{YBa}_2\text{Cu}_{3-x}\text{M}_x\text{O}_{7-y}$  (M = 3d metals Fe, Co, Ni, Zn) superconducting ceramics in both bulk and thick-film forms using a sol-gel technique" *Proceedings of the Japanese-U.S. High  $T_c$  Superconductor Symposium* (Tokyo, Japan, October 21-22, 1987).
155. L.H. Greene, J.-M. Tarascon, B.G. Bagley, P. Barboux, W.R. McKinnon, and G.W. Hull, "Physical properties of chemically-doped high- $T_c$  perovskites" in *High Temperature Superconductivity* (Progress in High-Temperature Superconductivity - Vol. 3); *Proceedings of the Drexel International Conference on High-Temperature Superconductivity*, Philadelphia, PA, July 29-30, 1987, S.M. Bose and S.D. Tyagi, eds. (World Scientific, Singapore, 1988), pp. 53-59.
156. L.H. Greene, B.G. Bagley, J.-M. Tarascon, and G.W. Hull, "Plasma oxidation and 3d metal doping of high  $T_c$  superconductors", in *Superconductivity in Highly-Correlated Fermion Systems*, M. Tachiki, Y. Muto, and S. Maekawa, eds. (Elsevier, 1987), p. 531.
157. L.H. Greene, J.-M. Tarascon, B.G. Bagley, P. Barboux, W.R. McKinnon, and G.W. Hull, "Plasma oxidation and 3d metal doping of high  $T_c$  superconductors" *Japanese Journal of Applied Physics* **26**, Supplement 26-3, 2036 (1987).
158. P. Barboux, J.-M. Tarascon, L.H. Greene, G.W. Hull, and B.G. Bagley, "Bulk and thick films of the superconducting phase  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$  made by controlled precipitation and sol-gel process" *Journal of Applied Physics* **63**, 2725-2729 (1988).
159. Patricia A. Morris, Brian G. Bagley, Jean Marie Tarascon, Laura H. Green, and George W. Hull, "Melt growth of high  $T_c$  superconducting fibers" *Journal of the American Ceramic Society* **71**, 334-337 (1988).
160. Z.-Z. Wang, J. Clayhold, N.-P. Ong, J.-M. Tarascon, L.H. Greene, W R. McKinnon, and G.W. Hull, "Variation of superconductivity with carrier concentration in oxygen-doped  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$ ", *Physical Review B* **36**, 7222-7225 (1987).
161. J.-M. Tarascon, L.H. Greene, P. Barboux, W.R. McKinnon, G.W. Hull, T. P. Orlando, K.A. Delin, S. Foner, and E. J. McNiff, Jr., "3d Metal doping of the high temperature superconducting perovskites La-Sr-Cu-O and Y-Ba-Cu-O" *Physical Review B* **36**, 8393-8400 (1987).
162. Y. Le Page, T. Siegrist, W.R. McKinnon, S.A. Sunshine, J.-M. Tarascon, L.F. Schneemeyer, G.W. Hull, D.W. Murphy, L.H. Greene, S.M. Zahurak, and J. V. Waszczak, "Structural properties of  $\text{Ba}_2\text{RCu}_3\text{O}_7$  high- $T_c$  superconductors" *Physical Review B* **36**, 3617-3621 (1987).
163. N.-P. Ong, Z.-Z. Wang, J. Clayhold, J.-M. Tarascon, L.H. Greene, and W.R. McKinnon, "Hall effect in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$  vs. oxygen content, x: observation of a sharp transition in RH vs. x. in *Novel Superconductivity*, S. A. Wolf and V. Z. Kresin, eds. (Plenum Press, NY 1987), pp. 1061-1066.



164. J.-M. Tarascon, L.H. Greene, B.G. Bagley, W.R. McKinnon, P. Barboux, and G.W. Hull, "Chemical doping and physical properties of the new high-temperature super-conducting perovskites", in *Novel Superconductivity*, S.A. Wolf and V.Z. Kresin, eds. (Plenum Press, NY 1987) pp. 705-724.
165. Y. Jeon, F. Lu, H. Jhans, S.A. Shaheen, M. Croft, P.H. Ansari, K.V. Ramanujachary, E.A. Hayri, S.M. Fine, S. Li, X.H. Feng, M. Greenblatt, L.H. Greene, and J.-M. Tarascon, "X-ray absorption measurements on high- $T_c$  superconductors: Cu valence and cation bond length effects" *Physical Review B* **36** 3891-3894 (1987).
166. J.-M. Tarascon, P. Barboux, B.G. Bagley, L.H. Greene, W.R. McKinnon, and G.W. Hull, "High-temperature superconducting oxide synthesis and the chemical doping of the Cu-O planes" in *Chemistry of High Temperature Superconductors*, D. L. Nelson, M.S. Whittingham, and T.F. George, eds. (American Chemical Society, Washington, D.C. 1987) pp. 198-210.
167. B.G. Bagley, L.H. Greene, J.-M. Tarascon, and G.W. Hull, "Plasma oxidation of the high  $T_c$  superconducting perovskites" *Applied Physics Letters* **51**, 622-624 (1987).
168. J.-M. Tarascon, W.R. McKinnon, L.H. Greene, G.W. Hull, and Y. LePage, "Processing and superconducting properties of perovskite oxides" *Advanced Ceramic Materials* **2**(3B), 498-505 (1987).
169. T.P. Orlando, K.A. Delin, S. Foner, E.J. McNiff, Jr., J.-M. Tarascon, L.H. Greene, W.R. McKinnon, and G.W. Hull, "Upper critical fields and anisotropy limits of high- $T_c$  superconductors  $R_1\text{Ba}_2\text{Cu}_3\text{O}_{7-y}$ , where R=Nd, Eu, Gd, Dy, Ho, Er, and Tm, and  $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$ " *Physical Review B* **36**, 2394-2397 (1987).
170. T.P. Orlando, K.A. Delin, S. Foner, E.J. McNiff, Jr., J.-M. Tarascon, L.H. Greene, W.R. McKinnon, and G.W. Hull, "Upper critical fields of high  $T_c$  superconducting  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4-y}$  and  $\text{Y}_1\text{Ba}_2\text{Cu}_3\text{O}_{7-y}$ ", in *High Temperature Superconductors*, D.V. Gubser and M. Schluter, eds. (Material Research Society, Pittsburgh, PA 1987), pp. 257-259.
171. W.R. McKinnon, J.-M. Tarascon, L.H. Greene, and G.W. Hull, "Rare earth doping of high  $T_c$  superconducting perovskites", in *High Temperature Superconductors*, D.B. Gubser and M. Schluter, eds. (Material Research Society, Pittsburgh, PA 1987), pp 85-187.
172. D.A. Bonn, J. E. Greedan, C. V. Stager, T. Timusk, M. Doss, S. Herr, K. Kamaras, C. Porter, D.B. Tanner, J.-M. Tarascon, W.R. McKinnon, and L.H. Greene, "Far-infrared properties of oxide superconductors:  $\text{Sr}_{0.15}\text{La}_{1.85}\text{CuO}_{4-x}$  and  $\text{YBa}_2\text{Cu}_3\text{O}_{6.5+x}$ ", in *High Temperature Superconductors*, D.V. Gubser and M. Schluter, eds. (Materials Research Society, Pittsburgh, PA 1987), pp. 107-109.
173. J.M. Tarascon, W.R. McKinnon, L.H. Greene, G.W. Hull, B.G. Bagley, E.M. Vogel, and Y. LePage, "Oxygen doping of the high  $T_c$  superconducting perovskites" in *High Temperature Superconductors*, D. V. Gubser and M. Schluter, eds. (Materials Research Society, Pittsburgh, PA 1987) pp. 65-67.
174. J.-M. Tarascon, W.R. McKinnon, L.H. Greene, G.W. Hull, and E.M. Vogel, "Oxygen and rare earth doping of the 90K superconducting perovskite  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ " *Physical Review B* **36**, 226-234 (1987).
175. D.A. Bonn, J. E. Greedan, C. V. Stager, T. Timusk, M. Doss, S. Herr, K. Kamarás, C. Porter, D.B. Tanner, J.-M. Tarascon, W.R. McKinnon, and L.H. Greene, "Far-infrared measurement of the gap of the high  $T_c$  superconductor  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_{4-y}$ ", *Physical Review B* **35**, 8843-8845 (1987).
176. N.-P. Ong, Z.-Z. Wang, J. Clayhold, J.-M. Tarascon, L.H. Greene, and W.R. McKinnon, "Hall effect of  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ : Implications for the electronic structure in the normal State", *Physical Review B* **35**, 8807-8810 (1987).
177. Y. LePage, W.R. McKinnon, J.-M. Tarascon, L.H. Greene, G.W. Hull, and D.-M. Hwang, "Room temperature structure of the 90K Bulk superconductor  $\text{YBa}_2\text{Cu}_3\text{O}_{8-x}$ ", *Physical Review B* **34**, 7245-7248 (1987).
178. T. P. Orlando, K.A. Delin, S. Foner, E.J. McNiff, Jr., J.-M. Tarascon, L.H. Greene, W.R. McKinnon, and G.W. Hull, "Upper critical fields of high  $T_c$  superconducting  $\text{Y}_{2-x}\text{Ba}_x\text{CuO}_{4-y}$ ", *Physical Review B* **35**, 7249-7251 (1987).

179. J.-M. Tarascon, L.H. Greene, W.R. McKinnon, and G.W. Hull, "Superconductivity at 90K in a multi-phase oxide of Y-Ba-Cu", *Physical Review B* **35**, 7115-7118 (1987).
180. S. Pan, K.W. Ng, A.L. de Lozanne, J.-M. Tarascon, and L.H. Greene, "Measurements of the superconducting gap of La-Sr-Cu-O with a scanning tunneling microscope", *Physical Review B* **35**, 7220-7223 (1987).
181. P.E. Sulewski, A.J. Sievers, R.A. Buhrman, J.-M. Tarascon, and L.H. Greene, "Far Infrared measurement of  $\alpha^2(\omega) F(\omega)$  in superconducting  $\text{La}_{1.84}\text{Sr}_{0.16}\text{CuO}_{4-y}$ ", *Physical Review B* **35**, 8829-8832 (1987).
182. J.-M. Tarascon, L.H. Greene, W.R. McKinnon, and G.W. Hull, "Superconductivity in rare-earth-doped oxygen-defect perovskites  $\text{La}_{2-x-y}\text{Ln}_y\text{Sr}_x\text{CuO}_{4-z}$ ", *Solid State Communications* **63**, 499- 505 (1987).
183. T.P. Orlando, K.A. Delin, S. Foner, E. J. McNiff, Jr., J.-M. Tarascon, L.H. Greene, W.R. McKinnon, and G.W. Hull, "Upper critical fields of high  $T_c$  superconducting  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4-y}$ ; possibility of 140 Tesla", *Physical Review B* **35**, 5347-5349 (1987).
184. J.-M. Tarascon, L.H. Greene, W.R. McKinnon, G.W. Hull, and T. H. Geballe, "Superconductivity at 40K in the oxygen-defect perovskites  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_{4-y}$ ", *Science* **235**, 1373-1376 (1987).
185. L.H. Greene, "Proximity-effect and tunneling in heavy-fermion/Nb layered structures" in *Superconducting Materials*, J. Bevk and A. Braginski, Eds. (Materials Research Society, Pittsburgh, PA, 1986), pp. 40-42.
186. M.C. Tamargo, R. Hull, L.H. Greene, J.R. Hayes, and A.Y. Cho, "Structural studies of an InAs-GaAs superlattice alloy", in *Layered Structures and Epitaxy* (Materials Research Society, Pittsburgh, 1985).
187. M.C. Tamargo, R. Hull, L.H. Greene, J.R. Hayes, and A.Y. Cho, "Growth of a novel InAs-GaAs strained layer superlattice on InP", *Applied Physics Letters* **46**, 569-571 (1985).
188. W. P. Lowe, E.M. Gyorgy, D.B. McWhan, L.H. Greene, W.L. Feldmann, and J.-M. Rowell, "Magnetic and structural properties of  $\text{Tm}_n\text{Lu}_m$  multilayer films", *Journal of Applied Physics*, **58**, 1615-1618 (1985).
189. L.H. Greene, W.L. Feldmann, and J.-M. Rowell, "Proximity-effect studies of Nb-based bilayers with s-p, rare-earth and heavy-fermion metals" *Physica B* **135**, 77-80 (1985).
190. L.H. Greene, W.L. Feldmann, J.-M. Rowell, B. Batlogg, R. Hull, and D.B. McWhan, "Influence of modulation wavelength induced order on the physical properties of Nb/rare-earth superlattices" in *Layered Structures, Epitaxy and Interfaces*, J.M. Gibson and L. R. Dawson, eds. (Materials Research Society, Pittsburgh, PA., 1985), pp. 523-527.
191. L.H. Greene, W.L. Feldmann, J.-M. Rowell, B. Batlogg, E.M. Gyorgy, W. P. Lowe, and D.B. McWhan, "Structural, magnetic and superconducting properties of rare-earth/superconductor multilayer films" *Superlattices and Microstructures* **1**, 407-415 (1985).
192. Z. Schlesinger, L.H. Greene, and A.J. Sievers, "Dipole-dipole-interaction induced line narrowing in thin-film vibrational-mode spectra" *Physical Review, B* **32**, 2721-2723 (1985).
193. L.H. Greene and A.J. Sievers, "Far infrared properties of lattice resonant modes. VII. Excited states and paraelectric pairs" *Physical Review B* **31**, 3948-3959 (1985).
194. Laura Helen Greene, "Far-infrared investigations of point defect, paraelectric pair and electrostatic vibrational modes" Thesis (Ph.D.) Cornell University (1984).
195. A.J. Sievers and L.H. Greene, "Observation of two elastic configurations at a point defect", *Physical Review Letters* **52**, 1234-1236 (1984).
196. L.H. Greene, Z. Schlesinger, and A.J. Sievers, "Nonlinear IR properties of an LO phonon in thin  $\text{KReO}_4$  films" *Physical Review B* **28**, 4863-4866 (1983).
197. L.H. Greene and A.J. Sievers, "Paraelectric pairs in lithium doped KBr", *Solid State Communications* **44**, 1235-1237 (1982).

198. D.B. Tanner, L.H. Greene, A.J. Epstein, and J.S. Miller, "Evidence for conduction electron-intermolecular vibrational interaction in a platinum chain salt", *Molecular Crystals and Liquid Crystals* **81**, 189-196 (1982).
199. L.H. Greene, D.B. Tanner, and A.J. Epstein, "Optical properties of the cation-deficient platinum chain salt,  $K_{1.75}Pt(CN)_4 \cdot 1.5H_2O$ " *Physical Review B* **25**, 1331-1339 (1982).
200. L.H. Greene, A.J. Sievers, and J.F. Figueira, "Nonlinear optical properties of matrix-isolated  $SF_6$ ", *IEEE journal of Quantum Electronics*, QE-17, 446-449 (1981).
201. L.H. Greene, R.T. Warner, W.E. Moerner, A.J. Sievers, and J.F. Figueira, "Passive mode locking of a TEA CO<sub>2</sub> laser with matrix-isolated  $SF_6$ ", *Journal of the Optical Society of American* **70**, 640-641 (1979).
202. J.F. Figueira, O. H. Nestor, L.H. Greene, and A.J. Sievers, "Solid state saturable absorbers for the infrared", *OSA/IEEE Digest of Technical Papers* **80CH1563-20EA**, 76-77 (1980).