

CURRICULUM VITAE

ANTONIO HELIO DE CASTRO NETO

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Education

Post-doctoral

Institute for Theoretical Physics, Santa Barbara, 1994-1995
Postdoctoral Mentor: Matthew P.A. Fisher.

Graduate

University of Illinois at Urbana-Champaign 1991-1994
- Ph.D. Physics 1994. Ph.D Mentor: Eduardo H. Fradkin

Professional experience

Professor of Physics, Boston University
2001-present
Associate Professor of Physics, Boston University
2000-2001
Associate Professor of Physics, University of California,Riverside
1998-2001
Assistant Professor of Physics, University of California,Riverside
1995-1998.
Postdoctoral fellow, Institute for Theoretical Physics,Santa Barbara
1994-1995.
Research assistant, University of Illinois at Urbana-Champaign
1993-1994.
Teaching assistant, University of Illinois at Urbana-Champaign
1991-1993.

Awards

11 th Ross J. Martin Award by University of Illinois at Urbana-Champaign, 1995.
Citation: “*outstanding research achievement by a graduate student*”.

University of California Regents Fellow, 1996.

Alfred P. Sloan Research Fellow, 1997.

Fellow of the American Physical Society, 2003.

Citation: “*For contributions to the theory of strong correlations, fluctuations, and inhomogeneities in high temperature superconductors and quantum magnets.*”

Visiting Miller Professorship, Miller Institute for Basic Research in Science, 2009-2010.
University of California, Berkeley.

Professional affiliations

Editor for Europhysics Letters (EPL).

Colloquium Editor for Reviews of Modern Physics.

Divisional Associate Editor for the Physical Review Letters.

Director of the Quantum Condensed Matter Visitor’s Program at Boston University

Member of the American Physical Society

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Member of the Scientific Advisory Committee
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Languages

Portuguese: fluent; English: fluent; Spanish: fluent

Publications

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- (177) “Observation of van Hove singularities in twisted graphene layers” by G. Li, A. Luican, J. M. B. Lopes dos Santos, A. H. Castro Neto, A. Reina, J. Kong, and E. Andrei, *Nature Physics* **6**, 109 (2009) (doi:10.1038/nphys1463).
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- (173) "Magnetism and magnetotransport in disordered graphene" by T. G. Rappoport, B. Uchoa, and A. H. Castro Neto, *Phys. Rev. B.* **80**, 245508 (2009).
- (172) "Lenosky's energy and the phonon dispersion of graphene" by S. Viola Kusminskiy, D. K. Campbell, and A. H. Castro Neto, *Phys. Rev. B* **80**, 035401 (2009).
- (171) "Pauling's Dreams for Graphene" by A. H. Castro Neto, *Physics* 2, 30 (2009).
- (170) "Strained graphene: tight-binding and density functional calculations" by R. M. Ribeiro, Vitor M. Pereira, N. M. R. Peres, P. R. Briddon, and A. H. Castro Neto, *New J. Phys.* **11**, 115002 (2009).
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- (168) "1/N Expansion in Correlated Graphene" by V. N. Kotov, Bruno Uchoa, and A. H. Castro Neto, *Phys. Rev. B* **80**, 165424 (2009).
- (167) "Comment on BCS Superconductivity of Dirac Electrons in Graphene Layers" by B. Uchoa and A. H. Castro Neto, *Phys. Rev. Lett.* **102**, 109701 (2009).
- (166) "Impurity induced spin-orbit coupling in graphene" by A. H. Castro Neto and F. Guinea, *Phys. Rev. Lett.* **103**, 026804 (2009).
- (165) "Adatoms in Graphene", by A. H. Castro Neto, V. N. Kotov, J. Nilsson, V. M. Pereira, N. M. R. Peres, B. Uchoa, *Solid State Communications* **149**, 1094 (2009).
- (164) "A tight-binding approach to uniaxial strain in graphene" by Vitor M. Pereira, A. H. Castro Neto, and N. M. R. Peres, *Phys. Rev. B.* **80**, 045401 (2009).
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- (160) "Distortion of the perfect lattice structure in bilayer graphene" by Vitor M. Pereira, R. M. Ribeiro, N. M. R. Peres, A. H. Castro Neto, *Phys. Rev. B* **79**, 045421 (2009) (Editor's Suggestion).

- (159) "Conductivity of suspended and non-suspended graphene at finite gate voltage" by T. Stauber, N. M. R. Peres, and A. H. Castro Neto, Phys. Rev. B **78**, 085418 (2008) (Publisher's note: Phys. Rev. B **78**, 089903 (2008). E: Phys. Rev. B **79**, 239901 (2009)).
- (158) "Electronic properties of a biased graphene bilayer" by E. V. Castro, K. S. Novoselov, S. V. Morozov, N. M. R. Peres, J. M. B. Lopes dos Santos, J. Nilsson, F. Guinea, A. K. Geim, and A. H. Castro Neto, submitted to Phys. Rev. B.
- (157) "Conductance quantization and transport gap in disordered graphene nanoribbons" by E. R. Mucciolo, A. H. Castro Neto, and C. H. Lewenkopf, Phys. Rev. B. **79**, 075407 (2009).
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- (155) "Theory of the magnetic moment in iron pnictides" by Jiansheng Wu, Philip Phillips, and A. H. Castro Neto, Phys. Rev. Lett. **101**, 126401 (2008).
- (154) "Electron-electron interactions and Dirac liquid behavior in graphene bilayers" by S. Viola Kusminskiy, D. K. Campbell, Europhysics Letters **85**, 58005 (2009).
- (153) "Origin of the energy bandgap in epitaxial graphene" by S.Y. Zhou, D.A. Siegel, A.V. Fedorov, F. El Gabaly, A. K. Schmid, A. H. Castro Neto, A. Lanzara, Nature Materials **7**, 259 (2008).
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- (135) "Electronic compressibility of a graphene bilayer" by S. Viola Kusminskiy, Johan Nilsson, D. K. Campbell, and A. H. Castro Neto, *Phys. Rev. Lett.* **100**, 106805 (2008).
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- (133) "Coulomb blockade in graphene nanoribbons" by F. Sols, F. Guinea, and A. H. Castro Neto, *Phys. Rev. Lett.* **99**, 166803 (2007).
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- (118) "Exotic superconducting phases of ultracold atom mixtures on triangular lattices" by L. Mathey, S.-W. Tsai, and A. H. Castro Neto, *Phys. Rev. B* **75**, 174516 (2007).
- (117) "Electron-phonon coupling and Raman spectroscopy in graphene" by A. H. Castro Neto and F. Guinea, *Phys. Rev. B* **75**, 045404 (2007).
- (116) "Superconducting states of pure and doped graphene" by B. Uchoa and A. H. Castro Neto, *Phys. Rev. Lett.* **98**, 146801 (2007).
- (115) "Retardation effects in the Holstein-Hubbard chain at half-filling" by Ka-Ming Tam, S.-W. Tsai, D. K. Campbell, and A. H. Castro Neto, *Phys. Rev. B* **75**, 161103 (2007).
- (114) "Transmission through a biased graphene bilayer barrier" by Johan Nilsson, A. H. Castro Neto, F. Guinea, and N. M. R. Peres, *Phys. Rev. B* **76**, 165416 (2007).
- (113) "Electronic states and Landau levels in graphene stacks" by F. Guinea, A. H. Castro Neto, and N. M. R. Peres, *Phys. Rev. B* **73**, 245426 (2006).
- (112) "Electronic properties of graphene multilayers" by Johan Nilsson, A. H. Castro Neto, F. Guinea, and N. M. R. Peres, *Phys. Rev. Lett.* **97**, 266801 (2006).
- (111) "Dirac Fermion Confinement in Graphene" by N. M. R. Peres, A. H. Castro Neto, and F. Guinea, *Phys. Rev. B*, (Rapid Commu.) **73**, 241403 (2006).

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- (109) "Competing Orders in two-dimensional Bose-Fermi mixtures", by L. Mathey, S-W. Tsai, and A.H. Castro Neto, Phys. Rev. Lett. **97**, 030601 (2006).
- (108) "Electron transmission between normal and heavy electron metallic phases in a Kondo lattice system", by M. A. N. Araujo, and A. H. Castro Neto, Phys. Rev. B. **75**, 115133 (2007).
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- (106) "Conductance quantization in mesoscopic graphene" by N. M. R. Peres, A. H. Castro Neto, and F. Guinea, Phys. Rev. B **73**, 195411 (2006).
- (105) "First-principles Calculation of the Single Impurity Surface Kondo Resonance" by Chiung-Yuan Lin, A. H. Castro Neto, and B. A. Jones, Phys. Rev. Lett. **97**, 156102 (2006).
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- (98) "Coulomb Interactions and Ferromagnetism in Pure and Doped Graphene", by N. M. R. Peres, F. Guinea, and A. H. Castro Neto, Phys. Rev. B. **72**, 174406 (2005).
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- (9) “Bosonization of the low energy excitations of Fermi liquids” by A. H. Castro Neto and Eduardo H. Fradkin, Phys. Rev. Lett. **72**, 1393-1397 (1994).
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- (5) “The thermodynamics of quantum systems and generalizations of Zamolodchikov’s C-theorem” by A. H. Castro Neto and Eduardo H. Fradkin, Nucl. Phys. B, **400**, 525-546 (1993).
- (4) “Dynamical decoupling and Kac-Moody current representation in multicomponent integrable systems” by J. M. P. Carmelo and A. H. Castro Neto, Phys. Rev. Lett., **70**, 1904-1907 (1993).
- (3) “Alternative approach to the dynamics of polarons in one dimension” by A. H. Castro Neto and A. O. Caldeira, Phys. Rev. B, **46**, 8858-8876 (1992) (E: Phys. Rev. B **52**, 13043-13043 (1995))
- (2) “New model for dissipation in quantum mechanics” by A. H. Castro Neto and A. O. Caldeira, Phys. Rev. Lett., **67**, 1960-1963 (1991) (E: Phys. Rev. Lett. **75**, 2631-2631 (1995)).

- (1) “Quantum dynamics of an electromagnetic mode in a cavity” by A. H. Castro Neto and A. O. Caldeira, *Phys. Rev. A*, **42**, 6884-6893 (1990).

Professional Activities

Organizer of the 1998 Condensed Matter Theory Retreat of the University of California at Arrowhead Lake, CA, November 1998.

Co-organizer of the International Conference on *Electronic Interactions, Electron Dynamics in DNA*, September 5-9, 2001, UCLA, Los Angeles California.

Co-organizer of the conference on *Transport and Dynamics in Complex Electronic Materials* in Porto, Portugal, September, 2001.

Member of the Publication committee of the “Strongly Correlated Electron Systems (SCES 2001)” held in Ann Arbor, Michigan, August, 2001.

Member of the International Support Committee of M2S-HTSC-VII, Rio de Janeiro, Brazil, June, 2003.

Organizer of the International Conference on “Spin and Charge Transport in Nanostructures”, held in Braga, Portugal, September, 2003.

Organizer of the International Conference on “Mottness and Quantum Critical Phenomena”, held in Tobago, West Indies, June 8-19 2005.

Organizer of the ICAM conference on “Frontiers of Science within Nanotechnology”, held at Boston University, August 25-27, 2005.

Organizer of the miniworkshop “Electronic properties of graphene”, held at the Kavli Institute for Theoretical Physics (KITP), University of California at Santa Barbara, Jan. 8-19, 2007.

Member of the academic review team for the Department of Physics at Texas A&M University at College Station, Texas, February 2008.

Co-organizer of the Focus session “Carbon nanotubes and related materials (DMP)” for the 2008 March Meeting of American Physical Society, New Orleans, March 2008.

Co-organizer of the workshop “The Physics of Graphene” at the Aspen Center for Physics, June 8-29, 2008.

Co-organizer of the Focus session “Graphene (DMP)” for the 2009 March Meeting of American Physical Society, Pittsburgh.

Co-organizer of the workshop “Recent Progress in Graphene Research” at the Korean Institute for Advanced Study (KIAS), Seoul, South Korea, June-July 2009.

Co-organizer of the Boston Area Carbon Nanotechnology (BACON) meeting at Boston University, June 2009.

Co-organizer of the Carbon Science and Technology (CaST) meeting in Singapore, September 2009.

Co-organizer of the Focus session “Graphene (DMP)” for the 2010 March Meeting of the American Physical Society, Portland.

Co-organizer of the Graphene sessions at the Nanotube 2010 (NT10), Montreal, Canada, June 2010.

Co-organizer of the conference “Recent Advances in Graphene and Related Materials”, Singapore, August 2010.

Co-organizer of the conference International Conference Series: Graphene, of the Brazilian Nanocarbon Institute (BNI), Belo Horizonte, Brazil, December 2010.

Invited talks, Conferences, Seminars and Schools

(189) Invited speaker at the MRS 2011 Spring Meeting, Symposium “Carbon Functional Interfaces”, San Francisco, USA, April 2011.

(188) Invited speaker at the International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE2010), Jeju Island, Korea, November 2010.

(187) Invited speaker at the international conference “Recent Advances in Graphene and Related Materials”, Singapore, August 2010.

(186) Invited speaker at the International Conference “Superstripes2010: Quantum Phenomena in Complex Matter”, Erice, Sicily, July 2010.

(185) Invited speaker at the International Conference on the Physics of Semiconductors (ICPS2010), Seoul, South Korea, July 2010.

(184) Tutorial speaker at the international conference Nanotube 2010 (NT10), Montreal, Canada, June 2010.

(183) Invited speaker at the Gordon Conference “Correlated Electron Systems”, Mount Holyoke College, MA, June 2010.

(182) Invited speaker at the Nobel Symposium “Graphene”, Nobel Foundation, Stockholm, May 2010.

(181) Invited speaker at workshop “Progress in Spintronics and Graphene Research”, Kavli Institute for Theoretical Physics China, Beijing, May 2010.

(180) Keynote speaker at the international conference “Foundations of Nanoscience (FNANO10)”, Snowbird, Utah, April 2010.

(179) Invited speaker at the annual meeting of the Korean Physical Society, Seoul, South Korea, April 2010.

(178) Invited speaker at the “JASON Defense Advisory Group”, Mitre Corporation, Washington D.C., April 2010.

(177) Invited speaker at “Graphene Week 2010”, University of Maryland, April 2010.

(176) Invited speaker at the international workshop “New frontiers in Graphene physics” at the European Center for Theoretical Studies in Nuclear Physics and Related Areas (ECT*), Trento, Italy, April 2010.

- (175) Colloquium speaker at the University of California at Davis, March 2010.
- (174) Tutorial speaker at the March Meeting of the American Physical Society, Portland, Oregon, March 2010.
- (173) Colloquium speaker at University of California at Los Angeles (UCLA), March 2010.
- (172) Invited speaker at the Miller Institute, University of California at Berkeley, March 2010.
- (171) Colloquium speaker at IBM Almaden, San Jose, California, February 2010.
- (170) Invited speaker at workshop "Electronic Properties of Graphene", Princeton University, February 2010.
- (169) Colloquium speaker at the Institute for High Performance Computing (IHPC), Singapore, January 2010.
- (168) Visiting Professor at Laboratoire de Physique des Solides, CNRS, Université Paris Sud, January 2010.
- (167) Invited speaker at the international conference "Towards reality in nanoscale materials", Finnish Lapland, December, 2009.
- (166) Colloquium speaker at Harvard University, Boston, November 2009.
- (165) Tutorial speaker at the Material Research Society Fall Meeting, Boston, November 2009.
- (164) Invited speaker at the Material Research Society Fall Meeting, Boston, November 2009.
- (163) Distinguished Visiting Professor at the National University of Singapore, Singapore, August 2009.
- (162) Invited lecturer at the American Chemical Society National Meeting in Washington D.C., August 2009.
- (161) Invited speaker at the "Graphene Workshop" at the Army Research Laboratories in Adelphi, Maryland, August 2009.
- (160) Invited speaker at the international workshop "Graphene" at the Centro de Ciencias de Benasque, Spain, July 2009.
- (159) Invited speaker at the international conference "Recent Progress in Graphene Research" at the Korean Institute for Advanced Study, Seoul, South Korea, June 2009.
- (158) Invited lecturer at the European Materials Research Society, Strassbourg, France, June 2009.
- (157) Invited Lecturer at the International School on Modern Theories of Correlated Electron Systems", École de Physique, Les Houches, May 2009.
- (156) Colloquium speaker, Waterloo University, Canada, March 2009.

- (155) Colloquium speaker, MacMaster University, Canada, March 2009.
- (154) Invited Speaker at the March Meeting of the American Physical Society, Pittsburgh, March 2009.
- (153) Invited speaker at the “Graphene Week 2009”, Obergurgl, Austria, March 2009.
- (152) Invited speaker at FCM2008 (Frontiers of Condensed Matter 1008), Buenos Aires, December 2008.
- (151) Colloquium speaker at Universidade do Minho, Braga, Portugal, November 2008.
- (150) Invited speaker at the workshop on “Correlations and Coherence in Quantum Matter”, Evora, Portugal, November 2008.
- (149) Tutorial speaker at the AsiaNano conference, Singapore, November 2008.
- (148) Invited speaker at the AsiaNano conference, Singapore, November 2008.
- (147) Invited speaker at the ‘XIX Latin Americal Symposium on Solid State Physics (SLAES XIX)’, Puerto Iguazú, Argentina, October 2008.
- (146) Invited speaker at the workshop “From Correlated Electrons to Nanoscale Materials”, held at Korea Institute for Advanced Study (KIAS), September 2008.
- (145) Invited speaker at IMRC2008 (XVII International Materials Research Congress), Cancun, Mexico, August 2008.
- (144) Invited speaker at the SCES 2008 (Strongly Correlated Electron Systems), Buzios, Brazil, August 2008.
- (143) Invited speaker at the conference on ”Defects in insulating systems”, Aracaju, Brazil, August 2008.
- (142) Invited speaker at the ICTP conference “Graphene week 2008”, Trieste, Italy, August 2008.
- (141) Invited speaker at the workshop “Quantum coherence and controllability at the mesoscale”, San Sebastian, Spain, May 2008.
- (140) Invited speaker at IBM Watson Research Center, April 2008.
- (139) Colloquium speaker at Kent State University, Ohio, March 2008.
- (138) Invited lecturer at the “Internation Winterschool on Electronic Properties of Novel Materials, Molecular Nanostructures (IWEPNM2008)”, Kirchberg/Tirol, Austria, March 2008.
- (137) Invited speaker at Brookhaven National Laboratory, Long Island, February 2008.
- (136) Plenary speaker at “Adventures in Theory” (a seminar series in theoretical and mathematical science) Duke University, Durham, January 2008.

- (135) Invited speaker at the “2008 Mesoscopic and Spin Physics Workshop”, Hsinchu, Taiwan, January, 2008.
- (134) Invited speaker at the workshop ”Relativistic dynamics of graphene”, Seattle, January 2008.
- (133) Plenary speaker at the “Workshop on Recent Progress in the Physics of Graphene”, Paris, France, December 2007.
- (132) Colloquium speaker at the University of Colorado, Boulder, November 2007.
- (131) Colloquium speaker at the University of British Columbia, Vancouver, Canada, November 2007.
- (130) Colloquium speaker at the University at Massachussetts, Lowell, November 2007.
- (129) Colloquium speaker at the University of Florida, Gainesville, October 2007.
- (128) Plenary speaker at the Fall Meeting of the American Physical Society (New England Section) and the American Association of Physics Teachers, “Carbon in the 21st Century”, Storrs, Connecticut, October 2007.
- (127) Invited speaker at the workshop on “Interacting electron physics in low dimensions”, Austin, Texas, October 2007.
- (126) Invited speaker at the conference ”Excited states processes in electronic and bio nanomaterials (ESP2007)”, Santa Fe, New Mexico, October 2007.
- (125) Invited speaker at the Gordon Godfrey Workshop 2007 on Strong Electron Correlations, Sidney, Australia, September 2007.
- (124) Invited speaker at the ”Ferrocabon meeting”, Madrid, Spain, September 2007.
- (123) Invited speaker at the “17th International conference on electronicproperties of two dimensional systems (EP2DS-17)”, Genova, Italy, July 2007.
- (122) Invited speaker at the International workshop on advances and applications of low-dimensional systems, Brasilia, Brazil, July 2007.
- (121) Invited speaker at the 2007 Canadian Association of Physicists Congressat Saskatoon, June 2007.
- (120) Invited speaker at the European Materials Research Society Spring Meeting (EMRS2007), Strasbourg, France, May 2007.
- (119) Invited plenary speaker at the XXX Brazilian National Meeting of Condensed Matter Physics, Brazil, May 2007.
- (118) Invited speaker at Purdue University, April 2007.
- (117) Invited speaker at the 13th Brazilian Workshop on Semiconductor Physics (BWSP13), São Paulo, Brazil, April 2007.
- (116) Hascoe distinguish lecturer at University of Connecticut, March 2007.

- (115) Invited colloquium speaker at UCLA, March 2007.
- (114) Invited speaker at the APS March Meeting of the American Physical Society in Denver 2007.
- (113) Tutorial speaker at the APS March Meeting of the American Physical Society in Denver 2007.
- (112) Colloquium speaker at University of Notre-Dame, February 2007.
- (111) Invited speaker at Yale University, February 2007.
- (110) Invited speaker at international conference “Graphene 2007” at the Lorentz Institute in Leiden, The Netherlands, February 2007.
- (109) Invited speaker at Oak Ridge National Laboratory, January 2007.
- (108) Invited speaker at UCLA, January 2007.
- (107) Invited speaker at the Kavli Institute for Theoretical Physics (KITP), UCSB, January 2007.
- (106) Invited speaker at Rice University, November 2006.
- (105) Chez Pierre invited speaker at MIT, November 2006.
- (104) Invited speaker at University of Texas at Austin, November 2006.
- (103) Invited speaker at University of Missouri at Columbia, October 2006.
- (102) Invited speaker at Los Alamos National Laboratory, October 2006.
- (101) Invited speaker at the international conference on “Dynamics and Relaxation in Complex Quantum and Classical Systems and Nanostructures” in Dresden, Germany, October 2006.
- (100) Invited speaker at Rutgers University, September 2006.
- (99) Invited speaker at the international conference on “Strongly correlated systems in low dimension” in Ascona, Switzerland, July 2006.
- (98) Invited speaker at ETH, Zürich, June 2006.
- (97) Invited speaker at Institute for Theoretical Physics at Utrecht, June 2006.
- (96) Invited speaker at University of California at Irvine, May 2006.
- (95) Invited speaker at University of California at Riverside, May 2006.
- (94) Invited speaker at University of California at San Diego, May 2006.
- (93) Invited speaker at University of California at Berkeley, May 2006.
- (92) Invited speaker at Stanford University, May 2006.
- (91) Invited speaker at University of Delaware, May 2006.
- (90) Invited speaker at Duke University, May 2006.
- (89) Invited speaker at Harvard University, April 2006.
- (88) Colloquium speaker at the University of Indiana at Bloomington, April 2006.
- (87) Invited speaker at the University of Illinois at Urbana-Champaign, April 2006.
- (86) Plenary speaker at the International Symposium on “Topological Aspects of Critical Systems and Networks”, Hokkaido University, Sapporo, Japan, February 2006.

- (85) Invited speaker at University of Toronto, Canada, November 2005.
- (84) Invited speaker at University of Connecticut, November 2005.
- (83) Invited speaker at the "Workshop on Complex behavior in electronic systems", Braga, Portugal, September, 2005.
- (82) Invited speaker at the "The Nanoelectronics and Dynamics of DNA" workshop at Waikiki Beach Marriott Resort, Oahu, Hawaii, August 2005.
- (81) Invited speaker at the "Workshop in Spectroscopic studies of nanoscale systems" at Brookhaven National Laboratory, May 2005.
- (80) Invited speaker at the "Condensed Matter Kids Seminar" at Harvard University, February 2005.
- (79) Invited speaker at the "Graduate Student Showcase" at Boston University, February 2005.
- (78) Colloquium speaker at Worcester Polytechnic Institute, Worcester, MA, November 2004.
- (77) Invited speaker at the "4th International Conference on nanoscale heterogeneity and quantum phenomena in complex matter", Rome, Italy, October 2004.
- (76) Invited speaker at the "Third International Workshop on Electron Correlations and Material Properties", Kos, Greece, July 2004.
- (75) Invited speaker at the "7th International Conference on Novel Superconductors (SNS 2004)", Barcelona, Spain, July 2004.
- (74) Invited speaker at Yale University, April, 2004.
- (73) Invited speaker at the "Frontiers of Physics and Biology Seminar Series", Brown University, February, 2004.
- (72) Invited speaker at the Aspen Conference "Spins in nanostructures: from Atoms to Quantum Dots to Magnets", January, 2004.
- (71) Colloquium speaker at Dartmouth College, November, 2003.
- (70) Invited speaker at Harvard University, October, 2003.
- (69) Invited speaker at the "Greater Boston Area Statistical Mechanical Meeting", October 2003.
- (68) Invited speaker at the international conference "Non-Fermi liquid behavior and quantum phase transitions", Leiden, the Netherlands, May, 2003.
- (67) Invited speaker at the XXVI Brazilian Meeting on Condensed Matter Physics (ENFMC), Caxambu, Brazil, May, 2003.
- (66) Invited speaker at the workshop on "Quantum mechanics on the large scale", Banff, Canada, April, 2003.
- (65) Invited speaker at the workshop on "Quantum criticality in Condensed Matter", Columbia University, New York, March 2003.
- (64) Invited speaker at Rutgers University, February, 2003.
- (63) Invited speaker at the University of Sherbrooke, Sherbrooke, Canada, January, 2003.
- (62) Invited speaker at the international workshop on "Electron interference and decoherence in nanostructures", Dresden, Germany, November, 2002.

- (61) Invited speaker at the DARPA workshop Spin, Spintronics, Florida, October, 2002.
- (60) Colloquium speaker at Boston College, September, 2002.
- (59) Invited speaker at IBM-Almaden, San Jose, August, 2002.
- (58) Invited speaker at the International Workshop on "Intrinsic Multiscale Structure and Dynamics in Complex Electronic Oxides" at the International Center for Theoretical Physics, Trieste, Italy, July, 2002.
- (57) Invited speaker at Brookhaven National Laboratory, April, 2002.
- (56) Invited speaker at the Condensed Matter Seminar at University of Florida at Gainesville, April, 2002.
- (55) Invited speaker at Oak Ridge National Laboratory, January, 2002.
- (54) Colloquium speaker at Clark University, January, 2002.
- (53) Invited speaker at the Condensed Matter Seminar at the University of Illinois at Urbana-Champaign, November, 2001.
- (52) Invited speaker at the Leiden Workshop 'Strongly Correlated Electron Systems', November, 2001.
- (51) Invited speaker at the International workshop "Excitations in unconventionally ordered metals", Santa Fe, October, 2001.
- (50) Invited speaker at the International Conference "Electronic properties of novel materials", Minho, Portugal, October, 2001.
- (49) Invited speaker at the International on "Electronic Interactions, Electron Dynamics in DNA", UCLA, September, 2001.
- (48) Invited speaker at the Third International Conference on "Stripes and High Tc Superconductivity", September 25-30, 2000, Rome, Italy.
- (47) Invited speaker at the International Conference on Magnetism, August 6-11, 2000, Recife, Brazil.
- (46) Seminar at Stanford University, April 13th, 2000.
- (45) Invited speaker at the Office of Naval Research conference on "Stripes and Superconductivity", March 4-5, Cape Cod, Massachusetts.
- (44) Invited speaker at the Gordon Research Conference on "Superconductivity", February 13-18, 2000, Ventura, California.
- (43) Invited lecturer at VI International Summer School "Nicolas Cabrera", September 18th, 1999, Madrid, Spain.
- (42) Invited lecturer at the "ISTAS School on Renormalization Group and Physics in Low Dimensions", September 8th, 1999, Lisbon, Portugal.
- (41) Invited speaker at the "Workshop on quantum effects in magnetic systems", June, 1999, Leiden, The Netherlands.
- (40) Invited speaker at the 1999 Centennial Meeting of the American Physical Society, March 20-26, in Atlanta, GA. Symposium on "New phenomenology for non-Fermi liquid behaviour at a quantum critical point".

- (39) Invited speaker at the “Second International Conference on New Theories, Discoveries and Applications of Superconductors and Related Materials (New3SC-2)”, May 31 - June 4, 1999, Las Vegas.
- (38) 1999 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **44**, (1999)).
- (37) Seminar at Boston University, 4 December 1998, Boston, MA.
- (36) Seminar at the University of Michigan at Ann Arbor, 1 December 1998, Ann Arbor, MI.
- (35) Invited to the Tenth Annual Symposium on “Frontiers of Science” organized by the National Academy of Sciences, 19-21 November 1998, Irvine, CA.
- (34) Organizer of the Annual University of California Condensed Matter Theory Retreat at Lake Arrowhead, 6-8 November 1998, Arrowhead, CA.
- (33) Seminar at University of Southern California, 4 November 1998.
- (32) Invited speaker at the Euroconference “Magnetism Today”, Évora, Portugal, 4-9 October, 1998.
- (31) Visiting scientist at the University of Évora, Portugal, June-August, 1998.
- (30) Seminar at the Institut de Physique Théorique, Université de Fribourg, Switzerland, August 1998.
- (29) Invited speaker at the conference “Open problems in strongly correlated systems”, 20 - 31 July 1998, at the ICTP, Trieste, Italy.
- (28) Invited speaker at the International Conference on “Strongly Correlated Electron Systems” (SCES98) 15-18 July 1998, Paris, France.
- (27) Invited Speaker at “International conference Stripes98”, 2-6 June 1998, Rome, Italy.
- (26) 1998 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **43**, 43, 121, 122, 183 (1998)).
- (25) Colloquium speaker at California State University at Los Angeles, Feb. 1998.
- (24) Seminar at Los Alamos National Laboratory, Jan. 1998.
- (23) Seminar at University of California at San Diego, Jan. 1998.
- (22) Seminar at University of California at Irvine, Jan. 1998.
- (21) Invited speaker at the International Conference on “New Theories, Discoveries, and Applications of Superconductors and Related Materials”, Louisiana, USA, 1998.
- (20) Invited speaker at the Workshop on “Strong Coupling Methods in Condensed Matter Physics” at Benasque Center for Physics, Spain, June 1997.
- (19) Invited lecturer at Summer School on “Dynamic Correlations in Interacting Electron Systems”, Vila Nova de Cerveira, Portugal, July 1997.
- (18) 1997 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **42**, 296, 297, 380 (1997)).
- (17) Invited speaker at the Euroconference on “Correlations in Unconventional Quantum Liquids”, Évora, Portugal, 7-11 October 1996.
- (16) Seminar at Institut für Theoretische Physik, Universität Hamburg, Germany, October 1996.

- (15) Invited speaker at the 1996 Workshop on “Quantum dissipation and applications”, International Centre for Theoretical Physics, Trieste, Italy.
- (14) 1996 Workshop on “Quantum Magnetism”, Aspen Center for Theoretical Physics.
- (13) Seminar at Los Alamos National Laboratory, 1996.
- (12) 1996 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **41**, 472, 589 (1996)).
- (11) Invited speaker at the “Seventh UC Conference on Statistical Mechanics”, 25-27 March 1996, Santa Cruz, CA.
- (10) Invited participant at the 1996 ITP Workshop “Non-Fermi liquid behavior in solids” University of California, Sta. Barbara.
- (9) 1995 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **40**, 65, 403, 565, 696 (1995)).
- (8) 1995 IFT Workshop “Quantum Impurity Problems” - University of Florida at Gainesville.
- (7) Invited speaker at the 1995 March Meeting of the American Physical Society - Bosonization of Fermi liquids by coherent states.
- (6) 1994 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **39**, 307, 412, 756 (1994)).
- (5) 1993 March Meeting of the American Physical Society (*Bull. Am. Phys. Soc.* **38**, 291, 584, 600, 753 (1993)).
- (4) Seminar at University of British Columbia, Vancouver, British Columbia, Canada, 1994.
- (3) Seminar at ATT Bell Laboratories, Murray Hill, New Jersey, USA, 1994.
- (2) Seminar at Rutgers University, Piscataway, New Jersey, USA, 1994.
- (1) Seminar at University of Illinois at Urbana-Champaign, Urbana, Illinois, USA, 1993.

Post-doctoral Fellows and Students

Prof. Alexander Chernyshev
 Postdoc from 1998 to 2000.
 Currently Associate Professor at University of California at Irvine, USA.

Prof. Erica Carlson
 Postdoc from 2001 to 2003 - co-advised with Prof. D. K. Campbell.
 Currently Assistant Professor at Purdue University, USA.

Prof. Marcello Silva Neto
 Postdoc from 2002 to 2004.
 Currently Assistant Professor at Universidade Federal do Rio de Janeiro, Brazil.

Dr. Eduardo Novais
 Visiting Ph.D. Student from Brazil, 1999-2000.
 Postdoc from 2002 to 2004.
 Currently postdoc at Duke University, USA.

Prof. Shan-Wen Tsai
Postdoc from 2003 to 2005 - co-advised with Prof. D. K. Campbell.
Currently Assistant Professor at University of California at Riverside, USA.

Prof. Yu Chang Chen
Ph.D. Student, graduated in 2001.
Currently Assistant Professor at National Chiao Tung University, Taiwan.

Dr. Chun-Min Chang
Ph.D. Student, graduated in 2002.
Currently Scientific Staff at Q-Chem, Pittsburgh, USA.

Dr. Chiung-Yuan Lin
Ph.D. Student, graduated in 2005.
Currently Assistant Professor at National Chiao Tung University, Taiwan.

Dr. Nils Hasselmann
Visiting Ph.D. Student from Germany, 1998-2000.
Currently Visiting Professor at the CIFMC, Brazil.

Dr. Vitor Pereira
Ph.D. Student, co-advised with Prof. João Lopes dos Santos
Universidade do Porto, Portugal, 2001-2006.
Currently postdoctoral fellow at Boston University, USA.

Mr. Johan Nilsson
Ph.D. Student. Graduate in 2007.
Currently postdoctoral fellow at Lorentz Center, Leiden, The Netherlands.

Ms. Silvia Viola
Current Ph.D. Student.

Mr. Cesar Seoanez Erkell
Visiting Ph.D. student from Universidad Autonoma de Madrid, Spain, 2005-2007.

Mr. Ludwig Mathey
Ph.D. Student, co-advised with Prof. B. Halperin, Harvard.
Graduated 2007.
Currently postdoctoral fellow NIST.