

CURRICULUM VITAE

ALLAN HUGH MACDONALD

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The University of Texas at Austin

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TITLE:

Sid W. Richardson Foundation Regents Chair

DATE AND PLACE OF BIRTH:

December 1, 1951

Antigonish, Nova Scotia, Canada

CITIZENSHIPS:

Canadian and American

FIELD OF SPECIALIZATION:

Condensed Matter Theory

EDUCATION:

Ph.D. (1978) University of Toronto (Canada)

M.S. (1974) University of Toronto (Canada)

B.S. (1973) St. Francis Xavier University (Canada)

PROFESSIONAL EXPERIENCE

- Sid W. Richardson Foundation Regents Chair, September 2000 – present
The University of Texas at Austin
- Distinguished Professor of Physics, September 1992 - August 2000
Indiana University
- Professor of Physics, September 1987 - August 1992
Indiana University
- Associate Research Scientist, August 1982 - August 1987
National Research Council of Canada
- Assistant Research Associate, November 1980 - June 1982
National Research Council of Canada
- Research Associate, May 1978 - October 1980
National Research Council
- Ph.D. Student, September 1973 - April 1978
University of Toronto

HONORS AND SCHOLARSHIPS:

- Ernst Mach Honorary Medal Academy of Sciences of the Czech Republic (2012)
- Fellow of National Academy of Sciences (2010)
- Outstanding Referee The American Physical Society (2008)
- Co-recipient of the Buckley Prize (2007)
- Fellow of the Academy of Arts and Sciences (2005)
- Sid W. Richardson Foundation Regents Chair (2000)
- Fellow of the American Physical Society, 1989
- Herzberg Medal, 1987 (Awarded by the Canadian Association of Physicists)
- NSERC 1967 Science Scholarship, University of Toronto, 1973–1977
- Governor-General's Medal, St. Francis Xavier University, 1973 (Highest academic standing in graduating class)
- President's Scholarship, St. Francis Xavier University, 1969–1973

PAST POSTDOCTORAL RESEARCHERS and GRADUATE RESEARCH ASSISTANTS:

- **Ramin Abolfath**, faculty at University of Texas Southwestern
- **Yasufumi Araki, Postdoc, Tohoku University, Japan**
- **Hiroshi Akera**, faculty at Hokkaido University, Japan
- **Yasufumi Araki**, faculty at Tohoku University, Japan
- **Bill Atkinson**, faculty at Trent University, Canada
- **Sunoy Banerjee**, CAN Corporation
- **Yafis Barlas**, faculty at University of Nevada, Reno
- **Rafi Bistrizter**, Applied Materials, Israel
- **Martin Bonsager**, Medtronic
- **Anton Burkov**, faculty at University of Waterloo, Canada
- **Leni Bascones**, permanent research staff CSIS-Madrid, Spain
- **Jeff Canfield**, Norway Telecon
- **Gaurav Chaudhary**, Postdoc, University of Chicago
- **Rene Cote**, faculty at University of Sherbrooke, Canada
- **Ashley DaSilva**, Data Scientist at VIA, Canada
- **Rembert Duine**, faculty at Utrecht University, The Netherlands
- **Hua Chen**, faculty at Colorado State University
- **Dmitry Efimkin**, faculty at Monash University, Australia
- **Karin Evershor-Sitte**, Head of Emmy Noether Research Group TWIST, U of Mainz, Germany
- **Zhang Fan**, faculty at University of Texas at Dallas
- **Joaquin Fernandez-Rossier**, faculty at Alicante University, Spain
- **Benedetta Flebus**, faculty at Boston College
- **Ion Garate**, faculty at the University of Sherbrooke, Canada
- **Claudius Gros**, faculty at Goethe University Frankfurt, Germany
- **Paul Haney**, permanent research staff at N.I.S.T.
- **Charles Hanna**, faculty at Boise State University
- **Rohit Hegde**, Managing Director, Adeep Group Companies
- **Hsiang-Hsuan Hung**, Data Scientist, ThreatMetrix, A LexisNexis Risk Solutions Company
- **Yogesh Joglekar**, faculty at Indiana/Purdue University
- **Jeil Jung**, faculty at the University of Seoul, Korea
- **Tomas Jungwirth**, Czech Academy of Sciences, Czech Republic

- **Guru Khalsa**, Research Associate at Cornell University
- **Jurgen Konig**, faculty at Ruhr University Bochum, Germany
- **Nicolas Leconte**, Research Professor, University of Seoul
- **Byounghak Lee**, Samsung (Silicon Valley)
- **Wei-Cheng Lee**, faculty at Binghamton University
- **Xiao Li, Postdoc**, University of Maryland, College Park
- **Hsiu-Hau Lin**, faculty at National Tsing-Hua University, Taiwan
- **Lukas Linhart**, Postdoc, TU Wien: Technische University Vienna
- **Timothy Lovorn**, Marginal Unit Inc (Energy Grid Software)
- **Massoud Masir**, Senior Manager, Machine Learning Research Scientist, QuinStreet
- **Hongki Min**, faculty at Seoul National University, Korea
- **Kentaro Nomura**, faculty at Tohoku University, Japan
- **Alvaro Nunez**, faculty at the University of Chile, Chile
- **Juan Jose Palacios**, faculty member at Alicante University, Spain
- **Lapas Panteleimon**, Project Engineer, Aristoteleion University of Thessaloniki
- **Emiliano Papa**, Deutsche Bank, London, United Kingdom
- **Tami Pereg-Barnea**, faculty at McGill University, Canada
- **Dmytro Pesin**, faculty member at the University of Virginia
- **Kenneth Poissonnier**, Postdoc, Technische Universiteit Eindhoven-Netherlands
- **Pawel Potasz**, faculty member at Nicolaus Copernicus University
- **Zhenhua Qiao**, faculty member at USTC, China
- **Yafei Ren**, postdoctoral researcher at University of Washington, Seattle
- **Enrico Rossi**, faculty at William and Mary University
- **John Schliemann**, faculty member the University of Regensburg, Germany
- **Akihiko Sekine**, researcher at RIKEN Laboratory, Japan
- **Yun-Pil Shim**, University of Texas at El Paso
- **Nikolai Sinitsyn**, permanent research staff at Los Alamos National Laboratory
- **Jairo Sinova**, faculty at Gutenberg University Mainz, Germany
- **Matthias Sitte**, Postdoc, University of Mainz, Germany
- **Inti Sodemann**, Pappalardo Fellow, MIT
- **Eric Sorensen**, faculty at McMaster University, Canada
- **Jung-Jung Su**, faculty at NCTU, Taiwan
- **Kharen Tevosyan**, Microsoft
- **John Tolsma**, Quantitative Researcher & Trader ETH Zurich
- **Wang-Kong (James) Tse**, faculty at the University of Alabama
- **C.C. Joseph Wang**, permanent research staff at Chevron
- **Fengcheng Wu**, postdoctoral researcher at the University of Maryland
- **Ming Xie**, postdoctoral researcher at the University of Maryland
- **Fei Xue**, postdoctoral researcher at NIST
- **Eric Yang**, Korea University, Korea
- **Ulrich Zuelicke**, faculty at University of Canterbury, New Zealand

CURRENT POSTDOCTORAL RESEARCHERS:

- **Chao Lei**
- **Chun-Li Huang**
- **Wei Qin**

RESEARCH INTERESTS AND HIGHLIGHTS:

My primary research interests center on the influence of electron-electron interactions on the electronic properties of metals and semiconductors. My research is driven, for the most part, by experiment rather than by theoretical technique. My technical interests cover a broad swath within the condensed matter theory subfield, ranging from pragmatic techniques for electronic structure calculations on the more traditional side to the more trendy field theoretical approaches. In the following paragraph, I briefly summarize the topics on which I have worked.

My Ph.D. thesis research, performed under the supervision of S. H. Vosko at the University of Toronto, was part of a body of work in the late 1970's, which demonstrated the power of spin-density-functional based approximations in describing many ground state properties of metallic magnets. One aspect of my thesis work was a relativistic generalization of the Hohenberg-Kohn-Sham density functional theory, reported in a paper ([11]), which is still regularly cited. My postdoctoral research work, performed at the laboratories of the National Research Council of Canada and motivated in part by experimental work in that lab, centered on the lattice dynamics and transport properties of metals. This work brought our understanding of carrier-carrier scattering effects in simple metals to a quantitative level for the first time and identified ([20]) phonon-mediated scattering as a dominant process in many metals. The work on transport theory in metals led to an interest in the quantum Hall effect, a transport anomaly that occurs in degenerate two-dimensional semiconductor systems in strong magnetic fields. My first work in this area ([48]) was carried out while visiting with Maurice Rice at the ETH in Zurich. It focused on some perplexing questions concerning the spatial distribution of current in the quantum Hall regime which subsequently received a great deal of attention. The following summer, while working at the physics center in Trieste in collaboration with Pavel Streda, I wrote an early paper ([61]) on the relationship between the Kubo formula description of the integer quantum Hall effect, which was being developed by Streda, Thouless, and others, and the edge state picture, being developed by Laughlin, Halperin and others.

By this time my primary interest had shifted from transport theory to the many-body physics problem underlying the fractional quantum Hall effect, namely the problem of interacting electrons in a macroscopically degenerate Landau level which can be tackled only with non-perturbative techniques. Working with Steve Girvin and Phil Platzman in Aspen in 1984, I employed a sum rule approach ([78]) similar to that used by Feynman for liquid Helium to address the collective excitations of fractional Hall states. In collaboration with Mark Rasolt ([83]), I used a similar approach to look at Goldstone modes in the broken symmetry states, which frequently arise, in the fractional Hall regime when the electrons possess additional degrees of freedom. Steve Girvin and I pointed out ([91]) an unusual long-range-order property in Laughlin's quantum Hall states. This paper was the harbinger of Chern-Simons field theory approaches to fractional Hall effect theory. In 1990 I proposed ([110]), on the basis of microscopic considerations, that the description of the low energy physics of fractional Hall edge required, in general, multi-branch one-dimensional Fermion models. This year also marked a return to my interest in broken symmetries in fractional Hall systems with additional degrees of freedom. I pointed out that ([116]) that double-layer quantum Hall systems could have a broken symmetry in their ground state like that in easy plane ferromagnets and estimated the phase boundary which delimited the stability region of the broken symmetry states. More recent work on this topic ([177]) has focused on the properties of these states when a magnetic field is

applied in the plane of the 2D electron layers. With René Côté I developed ([156]) techniques, originally applied to the Wigner crystal state, which enabled accurate calculations of physical properties of electronic states in the quantum Hall regime with broken translational symmetry. These techniques have provided the backbone for a series of recent calculations ([254]) of the properties of skyrmion crystal states in quantum Hall ferromagnets.

In recent years, a smaller fraction of my research effort has been devoted to the fractional quantum Hall effect. In collaboration with students at Indiana University, I have completed work on the vortex-lattice melting transition ([171]), and on microscopic properties of the mixed state of type-II superconductors. I maintain an interest in the properties of two-dimensional electronic systems, in both zero field and strong field limits. I have also returned to the subject of my thesis research, metallic magnetism. I am particularly interested in the transport properties of metallic magnets, and at present, especially the properties of magnetic tunnel junctions.

The numbers above refer to the publication list below.

PROFESSIONAL ACTIVITIES:

2014 Chair, International Conference on Magnetism - to take place in San Francisco in 2018

2014 2014 International Conference on the Physics of Semiconductors: Vice Chair

2013 Advisory Committee, William Fine Center for theoretical physics

2013 Meeting Chair, Magnetism and Magnetic Materials Conference

2013 Meeting Chair, APS March Meeting 2014

2013 Advisory Panel Coordinator, Ran conference 'Concepts in Spintronics' UCSB

2013 Review Committee, Dublin, Ireland - Irish Science Academy reviewing the CRANN Research Centre at Trinity College

2013 Advisory Panel, Center for Integrative Nanotechnology (CINT) - Sandia National Labs

2013 Simons Foundation Advisory Panel

2013 Vice-Chair for the 2014 International Conference on Semiconductors - to be held in Austin July 2014

2013 Chair of the Division of Condensed Matter Physics of the APS

2003 Review Panel, Materials Science Division at Argonne National Lab

1998 13th International Conference on Semiconductors in a Magnetic Field, Nijmegen,

Netherlands

- 1998** Advisory Committee, Institute for Theoretical Physics program on “Interaction and Disorder in Quantum Hall and Mesoscopic Systems
- 1998** Member of NRC Subpanel for NIST Center for Neutron Research
- 1997** Advisory Committee, Aspen Winter Conference on Condensed Matter
- 1997** Guest expert for European Science Foundation Meeting on the scientific case for the European Large Magnetic Field Facility (ELMF)
- 1997** Member of evaluation panel for a proposed high continuous magnetic field facility at Nijmegen for the Foundation for Fundamental Research on Matter (Netherlands)
- 1997** Member of NSF CAREER proposal review panel
- 1995** International Advisory Committee, 10th International Conference on Electronic Properties of Two-Dimensional Systems, Nottingham, UK
- 1995** Member, Executive Committee, DCMP, American Physical Society
- 1994** Chair of the Buckley Prize Committee for the American Physical Society
- 1994** Divisional Associate Editor for Physical Review Letters
- 1994** Program Committee, 11th International Conference on Semiconductors in a Magnetic Field, Boston MA
- 1993** Chair of the μ SR Experiment Evaluation Committee for TRIUMF
- 1993** Program Committee, 9th International Conference on Electronic Properties of Two-Dimensional Systems, Newport, RI
- 1993** Member of Buckley Prize Committee for the American Physical Society
- 1990** Member of the μ SR Experiment Evaluation Committee for TRIUMF
- 1990** Co-organizer, Aspen Workshop on Quantum Transport in Restricted Geometries, Aspen, Colorado
- 1990** Editorial Board of Solid State Communications
- 1988** Consultant for the Max Plank Institute for Solid State Research, Stuttgart, Germany
- 1987** Past Chair, Condensed Matter Division, Canadian Association of Physicists

- 1987 International Advisory Committee, 7th International Conference on Electronic Properties of Two-Dimensional Systems, New Mexico
- 1986 Chair, Condensed Matter Division, Canadian Association of Physicists
- 1986 Director, Summer Workshop on the Physics of Artificially Structured Materials, Kingston
- 1985 Deputy Chair, Condensed Matter Division, Canadian Association of Physicists
- 1981 Member of Local Organizing Committee, International Conference on Transport in Metals, Ottawa

PATENTS:

“Method for controlling magnetic exchange bias in magnetic sensors within a data storage device”, Tsoi, Maxim (Austin, TX); **MacDonald, Allan H.** (Austin, TX)
Application #60/915,705

“Bi-layer pseudo-spin field-effect transistor”, Banerjee; Sanjay K. (Austin, TX), Register, II; Leonard Franklin (Round Rock, TX), **MacDonald; Allan** (Austin, TX), Palle; Dharmendar Reddy (Austin, TX), Tutuc; Emanuel (Austin, TX),
Family ID: 42195397
Appl. No.: 13/461,212
Filed: May 1, 2012

PUBLICATIONS:

- 810 Libor, Šmejkal, MacDonald, A. H., Sinova, J., Nakatsuji, S., and Jungwirth, T., "Anomalous Hall antiferromagnets," arXiv:2107.03321 (July 7, 2021).
- 809 Portolés, E., Zheng, G., de Vries, F. K., Zhu, J., Tomić, Petar, Takashi T., Watanabe, K., MacDonald, A. H., Ensslin, K., Ihn, T., and Rickhaus, P., "Fabry-Pérot cavities and quantum dot formation at gate-defined interfaces in twisted double bilayer graphene," arXiv:2107.14299 (July 29, 2021).
- 808 Hu, Naichao, and MacDonald, A. H., "Competing magnetic states in transition metal dichalcogenide moiré materials," arXiv:2108.02159 (August 4, 2021).
- 807 Morales-Durán, N., Hu, Naichao, Potasz, P., and MacDonald, A. H., "Non-local interactions in moiré Hubbard systems," arXiv:2108.03313v1 (August 6, 2021).
- 806 Flebus, B., and MacDonald, A. H., "Charged Defects and Phonon Hall Effects in Ionic Crystals," arXiv:2106.13889 (July 26, 2021).

- 805 Pournaghavi, N., Pertsova, A., MacDonald, A. H., and Canali, C., "Non-local sidewall response and finite thickness corrections to the topological magnetoelectric effect in thin films," arXiv:2107.02410 (July 6, 2021).
- 804 Lei, C., Chen, H., and MacDonald, A. H., "Large Anomalous Hall Effect in Topological Insulators Proximitized by Collinear Antiferromagnets," arXiv:2107.02307 (July 5, 2021).
- 803 Lei, C., Heinonen, O., MacDonald, A. H., and McQueeney, R. J., "Metamagnetism of few-layer topological antiferromagnets," Phys. Rev. Materials **5**, 064201 (June 8, 2021).
- 802 Tiene, A., Levinsen, J., Parish, M. M., MacDonald, A. H., Keeling, J., and Marchetti, F. M., "Extremely imbalanced two-dimensional electron-hole-photon systems," Phys. Rev. Research **2**, 023089 (April 28, 2020).
- 801 Lei, C., and MacDonald, A. H., "Gate-tunable quantum anomalous Hall effects in MnBi₂Te₄ thin films," Phys. Rev. Materials **5**, L051201 (May 27, 2021).
- 800 Chaudhary, G., MacDonald, A.H., Norman, M.R., "Quantum Hall Superconductivity from Moiré Landau Levels," arXiv:2105.01243 (May 6, 2021).
- 799 Singh, C.N., Crafton, B.A., West, M.P., Weidenbach, A.S., Butler, K.T., MacDonald, A.H., Raychowdury, A., Vogel, E.M., Doolittle, W.A., Piper, L.F.J., and Lee, W.-C., "Quantum Statistical Transport Phenomena in Memristive Computing Architectures," Phys. Rev. Applied **15**, 054030 (May 14, 2021).
- 798 Lei, C. and MacDonald, A.H., "Silicon Donor Array as a Disordered One-Dimensional Electron Gas," arXiv:2105.07871v2 (May 20, 2021).
- 797 "In-plane critical magnetic fields in magic-angle twisted trilayer graphene," Qin, W. and MacDonald, A.H., arXiv:2104/14026v1, (April 30, 2021).
- 796 "Quantum Hall Superconductivity from Moiré Landau Levels," Chaudhary, G., MacDonald, A.H., Norman, M.R., arXiv:2105.01243 (May 11, 2021).
- 795 "Quantum Statistical Transport Phenomena in Memristive Computing Architectures," Singh, C.N., Crafton, B.A., West, M.P., Weidenbach, A.S., Butler, K.T., MacDonald, A.H., Raychowdury, A., Vogel, E.M., Doolittle, W.A., Piper, L.F.J., and Lee, W.-C., Phys. Rev. Applied **15**, 054030 (May 14, 2021).
- 794 "Silicon Donor Array as a Disordered One-Dimensional Electron Gas," Lei, C. and MacDonald, A.H., arXiv:2105.07871v2 (May 20, 2021).

- 793 "Strongly correlated excitonic insulator in atomic double layers," Ma, L, Nguyen, P. X., Wang, Z., Zeng, Y., Watanabe, K., Taniguchi, T., MacDonald, A. H., Mak, K. F., and Shan, J., arXiv:2104.05066 (April 13, 2021).
- 792 "Group Convolutional Neural Networks Improve Quantum State Accuracy," Roth, C., and MacDonald, A. H., arXiv:2104.05085v1 (April 11, 2021).
- 791 "Mirror Symmetry Breaking and Stacking-Shift Dependence in Twisted Trilayer Graphene," Lei, C., Linhart, L., Qin, W., Libisch, F., and MacDonald, A. H., arXiv:2010.05787v2 (April 7, 2021).
- 790 "Magnetic flat band in metallic kagome lattice FeSn," Xie, Y., Chen, Lebing, Yin, Z., Chen, T., Wang, Q., Yin, Q., Stewart, J. R., Feng, E., Cao, H., MacDonald, A. H., and Dai, P., arXiv:2103.12873v1 (March 23, 2021).
- 789 "Phonon Renormalization in Reconstructed MoS₂ Moiré Superlattices," Quan, J., Linhart, L., Lin, M.-L., Lee, D., Zhu, J., Wang, C.-Y., Hsu, W.-T., Choi, J., Embley, J., Young, C., Taniguchi, T., Watanabe, K., Shih, C.-K., Lai, K., MacDonald, A. H., Tan, P.-H., Libisch, F., and Li, X., Nature Materials (March 22, 2021).
- 788 "PTCDA molecular monolayer on Pb thin films: An unusual $\{\pi\}$ -electron Kondo system and its interplay with quantum-confined superconductor," Lu, X., Nam, H., Xiao, P., Liu, M., Guo, Y., Bai, Y., Cheng, Z., Deng, J., Li, Y., Zhou, H., Henkelman, G., Fiete, G. A., Gao, H.-J., MacDonald, A. H., Zhang, C., and Shih, C.-K., arXiv:2102.11471 (March 2021).
- 787 "Scattering of magnons at graphene quantum-Hall-magnet junctions," Wei, N., Huang, C., and MacDonald, A. H., Phys Rev Lett **126**, 117203 (March 18, 2021).
- 786 "Γ-Valley Transition-Metal-Dichalcogenide Moiré Bands," Angeli, M., and MacDonald, A. H., PNAS **118** (10) e2021826118 (March 9, 2021).
- 785 "The marvels of moiré materials," Andrei E. Y., Efetov, D. K., Jarillo-Herrero, P., MacDonald, A. H., Mak, K. F., Senthil, T., Tutuc, E., Yazdani, A., and Young, A. F., Nature Review Materials **6**, 201-206 (March 3, 2021).
- 784 "Critical magnetic fields and electron-pairing in magic-angle twisted bilayer graphene," Qin, W., Zou, B., and MacDonald, A. H., arXiv:2102.10504v1 (February 23, 2021).
- 783 "Magnetoelectric Response of Antiferromagnetic CrI₃ Bilayers," Lei, C., Chittari, B. L., Nomura, K., Banerjee, N., Jung, J., and MacDonald, A. H., Nano Letters **21** 5, 1948-1954 (February 18, 2021).
- 782 "Moiré Commensurability and the quantum anomalous Hall effect in twisted bilayer graphene on hexagonal boron nitride," Shi, J., Zhu, J., and MacDonald, A. H., Physical Review B **103**, 075122 (February 11, 2021).

- 781 "Exact Diagonalization for Magic-Angle Twisted Bilayer Graphene," Potasz, P., Xie, M., and MacDonald, A. H. arXiv:2102.02256v1 (February 5, 2021).
- 780 "Strong-Magnetic-Field Magnon Transport in Monolayer Graphene," Zhou, H., Huang, C., Wei, N., Taniguchi, T., Watanabe, K., Zaletel, M. P., Zlatko, P., MacDonald, A. H., and Young, A., arXiv:2102.01061v1 (February 2, 2021).
- 779 "Current Driven Magnetization Reversal in Orbital Chern Insulators," Huang, C., Wei, N., and MacDonald, A. H. Phys Rev Lett **126**, 056801 (February 2, 2021).
- 778 "Electron-exciton interactions in the exciton-polaron problem," Efimkin, D. K., Laird, E. K., Levinsen, J., Parish, M. M., and MacDonald, A. H., Phys Rev B **103**, 075417 (February 10, 2021).
- 777 "Floquet-engineering topological transitions in a twisted transition metal dichalcogenide homobilayer," Vogl, M., Rodriguez-Vega, M., Flebus, B., MacDonald, A. H., Fiete, G. A., Phys Rev B **103**, 014310 (January 28, 2021).
- 776 "Topological Edge Transport in Twisted Double-Bilayer Graphene," Wang, Y., Herzog-Arbeitman, J., Burg, G. W., Zhu, J., Watanabe, K., Taniguchi, T., MacDonald, A. H., Bernevig, B. A., and Tutuc, E., arXiv:2101:03621 (January 10, 2021).
- 775 "WKB estimate of bilayer graphene's magic twist angles," Ren, Y., Gao, Q., MacDonald, A. H., and Niu, Q., Phys Rev Lett **126**, 016404 (January 6, 2021).
- 774 "**Author Correction to:** Graphene Bilayers with a Twist," Andrei, E. Y., and MacDonald, A. H., Nature Materials **20**, 571 (January 5, 2021).
- 773 "Competing zero-field Chern insulators in Superconducting Twisted Bilayer Graphene," Stepanov, P., Xie, M., Taniguchi, T., Watanabe, K., Lu, X., MacDonald, A. H., Bernevig, B. A., and Efetov, D. K., arXiv:2012.15126 (December 30, 2020).
- 772 "Multiple Flat Bands and Topological Hofstadter Butterfly in Twisted Bilayer Graphene Close to the Second Magic Angle," Lu, X., Lian, B., Chaudhary, G., Piot, B. A., Romagnoli, G., Watanabe, K., Taniguchi, T., Poggio, M., MacDonald, A. H., Bernevig, B. A., and Efetov, D., arXiv:2006.13963 (December 24, 2020).
- 771 "Metal-insulator transition in transition metal dichalcogenide heterobilayer moiré superlattices," Morales-Durán, N., Potasz, P., and MacDonald, A. H., arXiv:2011.13558v1 (November 27, 2020).
- 770 "Voltage-Controlled Magnetic Reversal in Orbital Chern Insulators," Zhu, J., Su, J.-J., and MacDonald, A. H., Phys. Rev. Lett. **125**, 227702 (November 24, 2020).

- 769 "Electrical switching of magnetic order in an orbital Chern insulator," Polshyn, H., Zhu, J., Kumar, M. A., Zhang, Y., Yang, F., Tschirhart, C. L., Serlin, M., Watanabe, K., Taniguchi, T., MacDonald, A. H., and Young, A. F., *Nature* **588**, 66-70 (November 23, 2020).
- 768 "Graphene Bilayers with a Twist," Andrei, E. Y., and MacDonald, A. H., *Nature Materials* **19**, 1265-1275 (November 18, 2020).
- 767 "Magnetized Topological Insulator Multilayers," Lei, C., Chen, S., and MacDonald, A. H., *PNAS* **117** (44) 27224-27230 (November 3, 2020).
- 766 "Anomalous drag in electron-hole condensates with granulated order," Liu, H., MacDonald, A. H., and Efimkin, D. K., arXiv:2010.15298v1 (October 30, 2020).
- 765 "Combined valley and layer control in twisted double bilayer graphene," de Vries, F. K., Zhu, J., Portolés, E., Zheng, G., Masseroni, M., Kurzmann, A., Taniguchi, T., Watanabe, K., MacDonald, A. H., Ensslin, K., Ihn, T., and Rickhaus, P., *Phys. Rev. Lett.* **125**, 176801 (October 20, 2020).
- 764 "Valley Pumping via Edge States and the Nonlocal Valley Hall Effect in Two-Dimensional Semiconductors," Sekine, A., and MacDonald, A. H., *Phys. Rev. B* **102**, 1055205 (October 20, 2020).
- 763 "Weak-field Hall Resistivity and Spin/Valley Flavor Symmetry Breaking in MAtBG," Xie, M., and MacDonald, A. H., arXiv:2010.07928v1 (October 16, 2020).
- 762 "Lattice Collective Modes from a Continuum Model of Magic-Angle Twisted Bilayer Graphene," Kumar, A., Xie, M., and MacDonald, A. H., arXiv:2010.05936v1 (October 12, 2020).
- 761 "Majorana Zero Modes in Cylindrical Semiconductor Quantum Wire," Lei, C., Khalsa, G., Du, J., and MacDonald, A. H., arXiv:2009.12640v1 (September 26, 2020).
- 760 "Theory of Photon Condensation in a Spatially-Varying Electromagnetic Field," Andolina, G. M., Pellegrino, F. M. D., Giovannetti, V., MacDonald, A. H., and Polini, M., *Phys. Rev. B* **102**, 125137 (September 21, 2020).
- 759 "Majorana-based quantum computing in nanowire devices," Tutschku, C., Reinthaler, R. W., Lei, C., Hankiewicz, E. M., and MacDonald, A. H., *Physical Review B* **102**, 125407 (September 3, 2020).
- 758 "Electrically Controlled Two-Dimensional Electron-Hole Fluids," Zeng, Y., and MacDonald, A. H., *Phys Rev B* **102**, 085154 (August 31, 2020).
- 757 "Higgs-like modes in two-dimensional spatially indirect exciton condensates," Xue, F., Wu, F., and MacDonald, A. H., *Phys Rev B* **102**, 075136 (August 25, 2020).

- 756 "Theory of ARPES in Graphene-Based Moiré Superlattices," Zhu, J., Shi, J., and MacDonald, A. H., arXiv:2006.08908v1 (August 10, 2020).
- 755 "Unveiling Defect-Mediated Carrier Dynamics in Monolayer Semiconductors by Spatiotemporal Microwave Imaging," Chu, Z., Wang, C.-Y., Quan, J., Zhang, C., Lei, C., Han, A., Ma, X., Tang, H.-L., Abeyasinghe, D., Staab, C., Zhang, X., MacDonald, A. H., Tung, V., Li, X., Shih, C.-K., and Lai, K., PNAS **117** (25), 13908-13913 (June 23, 2020).
- 754 "Linear magnetoresistance induced by intra-scattering semiclassics of Bloch electrons," Xiao, C., Chen, H., Gao, Y., Xiao, D., MacDonald, A. H., and Niu, Q., Phys Rev B **101**, 201410(R) (May 27, 2020).
- 753 "Density-Wave States in Twisted Double-Bilayer Graphene," Rickhaus, P., de Vries, F. K., Zhu, J., Portolés, E., Zheng, G., Masseroni, M., Kurzmann, A., Taniguchi, T., Watanabe, K., MacDonald, A. H., Ihn, T., and Ensslin, K., arXiv: 2005.05373v2 (May 18, 2020).
- 752 "Electronic structure of carbon nanotubes on graphene substrates," Flebus, B., and MacDonald, A. H., Phys. Rev. Research **2**, 022041(4) (May 15, 2020).
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- 5 "Non-Local Exchange-Correlation Effects on the Spin Susceptibility and Thermal Density of States of Cu", Liu, K. L.; MacDonald, Allan H.; Vosko, S. H., *Can. J. Phys.* **55**, 1991 (1978).
- 4 "Theoretical Estimate of the Exchange Correlation Enhancement of the Spin Susceptibility of Scandium", MacDonald, A. H.; Liu, K. L.; Vosko, S. H., *Phys. Rev B* **16**, 777 (1977).
- 3 "Variational-Principle Density-Functional Evaluation of the Spin Susceptibility for the Alkali Metals", MacDonald, A. H.; Vosko, S. H., *J. Low Temp. Phys.* **25**, 27 (1976).
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- 1 "Ab Initio Calculation of the Spin Susceptibility for the Alkali Metals Using the Density-Functional Formalism", Vosko, S. H.; Perdew, J. P.; MacDonald, A. H., *Phys. Rev. Lett* **35**, 1725 (1975).

BOOKS:

1. "A Perspective on the Quantum Hall Effect", MacDonald, Allan H., (Jack Books, Milan, 1989.)

For the past 10 years an average of 20 presentations per year.

INVITED TALKS:

UC Irving, gave talks on twisted graphene, February 12-14, 2020.

Atlantic Undergraduate Physics and Astronomy Conference, St. Francis Xavier University, January 31-February 2, 2020.

Distinguished Lecture Series at the Tata Institute for Fundamental Research, Dept. of Condensed Matter Physics and Materials Science, Mumbai, India, January 24, 2020.

Inaugural Workshop of the Thouless Institute for Quantum Matter at the University of Washington at Seattle, January 18-20, 2020.

IPAM Workshop: Theory and Computation for 2D Materials, Los Angeles, CA. January 13-17, 2020.

Fleet Collaboration Workshop, Arc Centre of Excellence in Future Low-Energy Electronics Technologies, Lorne, Australia, December 8-11, 2019.

AIP (Australian Institute of Physics) Summer Meeting, RMIT University in Melbourne, Australia, December 1-5, 2019.

Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations, UNSW School of Physics, Australia, November 25, 2019.

SpinPeru: International Workshop Spintronics 2019, Ollantaytambo, Cusco, Peru, October 20-25, 2019.

"Many Body States of Light: Go and No-Go," Fundamental Optical Processes in Semiconductors (FOPS) workshop in Banff, Canada, August 6, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," Royal Society Exchange Program at St. Andrews University, September 18, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," Fundamental Optical Processes in Semiconductors (FOPS), Calgary, Canada, August 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," Condensed Matter in the City Workshop

London, July 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," Moire in Paris 2019, División de Física Materia Condensada, June 3-4, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," 9th edition of the largest European Conference & Exhibition in Graphene and 2D Materials, Rome, Italy, June 27, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," New Materials and Structures in Topological and Correlated Systems, Hong Kong University, June 18, 2019.

"Optical Properties of Topological Materials," CLEO Laser Science to Photonic Applications Conference, San Jose, California, May 6, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," Princeton University, April 26, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," Case Western University, Cleveland, OH, April 18, 2019.

"Electronic Properties of Magic Angle Twisted Bilayer Graphene," University of British Columbia, March 1, 2019.

"Nature of the Insulating State in Magic Angle Twisted Bilayer Graphene." Cal Tech, October 23, 2018.

"Magic-Angle Twisted Bilayer Graphene." National Center for Theoretical Science (NCTS) Physics Division, National Tsing Hua University, September 27, 2018.

"Gate Response of Magic Angle Bilayer Graphene." FET International Workshop 2018, Groningen, The Netherlands, August 22, 2018.

"Strong Correlations in Magic Angle Double Bilayer Graphene." Cambridge/Manchester Graphene Workshop, Manchester, UK, June 30, 2018.

"Tuning the BKT Transition in Double-Bilayer Graphene Quantum Hall Ferromagnets. " International Symposium on Quantum Hall Effects and Related Topics, Max Plank Institute for Solid State Research, Stuttgart, Germany, June 27, 2018.

"Tuning the BKT Transition in Double-Bilayer Graphene Quantum Hall Ferromagnets. " Topological phenomena TopMat: from the quantum Hall effect to spin liquids, Université de Paris, France, June 23, 2018.

"Building Exciton Circuits." Workshop on Photonics in quantum and topological materials, Barcelona Spain, June 19, 2018.

"Electronic Structure Theory for Electron-Electron Interaction Physics in Semimetals and Semiconductors"

Electronic A10Structure Workshop and Penn Conference in Theoretical Chemistry. University of Pennsylvania, June 12, 2018.

"Twisted Bilayer Magic Angles." Harvard University, May 10, 2018.

"More Moirés." MIT, May 9, 2018.

"Fundamental Physics with a Twist." Invited talk at a University of Utah colloquium, April 19, 2018.

"Correlation and Topology in Quantum Materials." Invited talk at the New York Section of American Physical Society 118th Topical Symposium, University of Binghamton, New York on April 13, 2018.

"Three Ways to Think About Spin-Orbit Torques." Colorado State University, April 3, 2018.

"Moire Patterns in 2D Materials: Fundamental Physics with a Twist." Colorado State University, April 2, 2018.

"Multi-Condensate Superconductivity and Superfluidity in Solids and Ultracold Gases." Keynote speaker at MultiSuper International Conference in Trieste, Italy. Hosted by the International Centre for Theoretical Physics, May 14, 2018.

"The Quantum Anomalous Hall Majorana Platform." New Platforms for Topological Superconductivity with Molecules and Atoms: International Focus Workshop at Max Planck Institute for the Physics of Complex Systems, Dresden, Germany, April 10, 2018.

"Broken Symmetries in Quantum Hall Systems." Invited talk at the Current View on Quantum Hall Physics and Correlations Symposium, Wrocław University of Science and Technology, Wrocław, Poland, January 12, 2018.

"Electrical Manipulation of Exciton and Polariton Gases." Invited talk at the 18th International Conference on Polaritons: Light-Matter Coupling in Nanostructures, held in Würzburg, Germany, July 14, 2017.

"Exciton Condensates in the Quantum Hall Regime." German-Israeli Minerva School on Quantum Dipolar Gases and Atomic and Condensed Matter Systems (DIP-QUANTUM), Jerusalem, Israel, October 24, 2017.

"Nematic order near Topological Insulator / Normal Insulator phase transitions." Invited talk at Spin Phenomena in Low-Dimensional Systems Interdisciplinary Center (SPICE), Johannes Gutenberg University, Mainz, Germany. July 27, 2017.

"Electrical Manipulation of Exciton and Polariton Condensates." Presented at University of Maryland, JQI 10th Anniversary Symposium. May 18, 2017.

"Moire Patterns in Two-Dimensional Materials." Presented at University of Minnesota, College of Science and Engineering, Mathematical Modeling of 2D Materials Conference. May 16, 2017.

"Nematic order near Topological Insulator / Normal Insulator phase transitions." Presented at Pittsburgh Quantum Institute, July 10, 2017.

Institute: PQI2017: Quantum Revolutions. April 26, 2017.

"Anomalous Velocity in Condensed Matter and Ultracold Atoms." Present at MIT, April 17, 2017.

"Topological Materials." Present colloquium talk at City College of New York (CCNY). April 19-21, 2017.

"New Horizons in Spintronics." The KITS 2017 Forum: New Horizons in Condensed Matter Physics. Beijing, China, March 27-29, 2017.

"Nematic order new Topological Insulator / Normal Insulator phase transitions." Workshop in Tokyo, February 2017.

"New Horizons in Spintronics." Workshop in Tahiti, February 12, 2017.

"*Electron-Hole Pair Condensates*." Colloquium at University of Central Florida at Orlando, November 2016.

Colloquium at Virginia Tech, Oct. 17, 2016

West Lafayette, IN, Oct. 2016

Workshop in Mainz Germany - Sept. 21, 22, 23 2016

"*Topological Spintronics*", International Conference on new trends in Topological Materials
Wurzburg Germany, July 2016

"*Polaritronics*"

University of Science and Technology of China, July 2016

"*Ordered states in Graphene Multilayers*", Swiss Workshop on Materials with Novel Electronic Properties
Switzerland, July 6, 2016

"*Many-Body Switches*", International Conference on Emerging Functional Electronic Materials and Devices
Hefei China, July 10, 2016

"*Topological Spintronics*" Frankfurt, Germany, July 24, 2016.

"*Polaritronics*"

Stanford, San Fran CA, June 2016

"*Interaction correction to the topological magneto-electric effect*"

Stanford, San Fran CA, May 2016

"Theory of Spin-Orbit Torques in Topological Insulator DMSs"

U. of Minnesota, May 12, 2016

"Spatially Indirect Exciton Condensates"

Frontiers of Electronic Structure Symposium Regensburg, May-2016

"Spin-Orbit Torques"

Rice University April-2016

"The Quantum Hall Effect and Spintronics"

Rice University April-2016

"New Physics in 2D materials"

Sydney, Australia Feb-2016

"Spin-Orbit Torques"

Sydney, Australia Feb-2016

"Interaction correction to the Topological Magnetoelectric effect"

Sydney, Australia Feb-2016

"Spin-Orbit Torques" UTA Feb-2016

"Spintronics with Antiferromagnets"

INTERMAG Conference - San Diego Jan-2016

"Anomalous Electrical Properties of Spatially Indirect Exciton Condensates"

Rice University Dec-2015

"Spin-Orbit Torques"

Conference in Narita, JA Nov-2015

"New Physics in Two-Dimensional Materials"

Lorne Australia Nov-2015

"Quantum Hall Effect Theory Reprise"

ASANN in Hawaii Nov-2015

“Majorana Zero Modes and Beyond”

Pittsburg, PA Nov-2015

“Anomalous Electrical Properties of Spatially Indirect Exciton Condensates”

University of Singapore Oct-2015

“Interaction Effects in Graphene and Related Materials”

Workshop San Sebastian, Spain Jun-2015

“The quantum Hall effect and spin-orbit torques”

Spin-orbit coupling in surface or interface states” Workshop. Spetses, Greece Jun-2015

“The quantum Hall effect and spin-orbit torques”

International Workshop: Spintronics with Antiferromagnets. Tokyo University Jun-2015

“The quantum Hall effect and spin-orbit torques”

Columbia University May-2015

“Exciton Condensates are Super!”

ONR-PCTS Majorana Workshop, Princeton, NJ April- 2015

“Exciton Condensates are Super!”

Colloquium at UCLA April-2015

“Exciton Condensates are Super!”

Colloquium at Kent State in Akron, OH April-2015

“The Quantum Hall Effect and Spintronics”

Physics Symposium 2015, Perimeter Institute April-2015

“Exciton Condensates are Super!”

Colloquium at Perimeter Institute April-2015

“Spatially Indirect Exciton Condensates in Transition Metal Dichalcogenides”

University of Maryland Colloquium Feb-2015

“Anomalous Electrical Properties of Spatially Indirect Exciton Condensates”

Rice University Dec-2014

“Magnetic Majorana Factories”

Taiwan, Dec-2014

“Many-Body Switches”

Taiwan, Dec-2014

“Tutorial Lectures on the Electronic properties of Graphene Based Electron systems”

Symposium K, Boston, MA Dec-2014

“Toward Optimized Topological Superconductivity in Transition Metal Atom Chains”

Majorana Workshop, Princeton University, Oct-2014

“High-Precision ARPES and frontiers of Many-electron Physics”

LBL Soft-Xray workshop, CA Oct-2014

“High-Precision ARPES and frontiers of Many-electron Physics”

University of Amsterdam Oct-2014

“Toward Optimized Topological Superconductivity in Transition Metal Atom Chains”

ONR-PCTS Majorana Workshop, Princeton, NJ Oct-2014

“Spin Superfluidity and Many-Body Switches”

St. Francis Xavier University, Antigonish, NS, Canada, Aug-2014

“Many-Body Switches”

ICPS Conference, Austin, TX, Aug-2014

“Muons and Topological Insulators”

muSR 2014 International Conference, Switzerland, Jun-2014

“Fractional Quantum Hall Effect in Graphene”

Gordon Research Conference on Graphitic Materials, Bates College, Lewiston, MA, Jun-2014

“Exciton and Spin Superfluidity”

Kalmar University, Sweden, Jun-2014

“Fractional Quantum Hall Effect in Graphene”

Graphene Week 2014 Conference, Sweden, Jun-2014

"Exciton and Spin Superfluidity"

Multisuper Conference, Camrino, Italy, Jun-2014

"Excitonic Superfluidity"

Inaugral International Conf. for International Center for Theoretical Physics, Turkey, May-2014

"Fractional Quantum Hall Effect in Graphene"

Naples, Italy, Apr-2014

"Spin-Superfluidity"

New York University, NY, Apr-2014

"Spintronics in Graphene and Topological Insulators"

SpinoGraph, Braga, Portugal, Mar-2014

"Many-Body Switches"

APS Workshop, Denver, CO, Mar-2014

"Many-Body Switches"

Texas Tech, Lubbock, TX, Mar-2014

"Dipolariton Bose Condensates"

Pennsylvania State University, Feb-2014

"Majorana States in Semiconductor and Oxide Quantum Wires"

CQS Seminar, Austin, TX, Jan-2014

"Majorana States in Semiconductor and Oxide Quantum Wires"

Tokyo, Japan, Jan-2014

"Spin-Superfluidity"

Kavli Center for Theoretical Physics, Santa Barbara, CA, Dec-13

"Anomalous Hall effect revisited"

Simon Fraser University, Vancouver, BC, Canada, Nov-13

"Majorana State Properties in Semiconductor and Oxide Superconducting Quantum Wires"

University of Illinois at Urbana-Champaign, Champaign, IL, Nov-13

“Anti-Spintronics”

UCSB Kavli Institute for Theoretical Physics, Santa Barbra, CA, Oct-13

“Spin-Orbit Interactions in Oxide Two-Dimensional Electron Systems”

Stanford San Francisco, San Fran, CA, Aug-13

“Superfluidity in GiBilayer Quantum Hall Systems”

Trento, Italy, Jul-13

“Majorana States in Oxide Quantum Wires”

Ettore Majorana Center for Theoretical Physics, Sicily, Italy, Jul-13

“Majorana States in Oxide Quantum Wires”

Sicily, Italy, Jul-13

“Theory of spontaneous Hall states in graphene and graphene multilayer two-dimensional electron systems”

University of Paris, France, Jun-13

“Theory of current-induced torques in magnetic thin films”

University of Paris, France, Jun-13

“Theory of the Interaction between graphene and graphite or boron nitride substates”

University of Paris, France, May-13

“Topological States in Graphene-Based Two-Dimensional Electron Systems”

University of Vermont, Burlington, VT, Apr-13

“Topological States in Graphene-Based Two-Dimensional Electron Systems”

University of Victoria, Victoria, BC, Canada, Mar-13

“Topological States in Graphene-Based Two-Dimensional Electron Systems”

University of British Columbia, Vancouver, BC, Canada, Mar-13

“Topological States in Graphene-Based Two-Dimensional Electron Systems”

McGill University, Montreal, QC, Canada, Jan-13

“Spin Transfer in Semiconductors and Quantum Hall Bilayers”

Gorky, Russia, Jul-04

“Ferromagnetism and Spin Transport in Semiconductors”
Pacific Grove, CA, Jul-04

“Excitonic BEC in Bilayer Quantum Hall Systems”
Prague, CZ Rep, Jul-04

“Spin Transfer in Semiconductors and Quantum Hall Bilayers”
Wuhan, China, Jun-04

“Spin Transfer in Semiconductors and Quantum Hall Bilayers”
St. Petersburg, Russia, Jun-04

“Ferromagnetism and Spin Transport in Semiconductors”
Beijing, China, Jun-04

“Ferromagnetism and Spin Transport in Semiconductors”
Holyoke, MA, Jun-04

“Spin Transfer in Semiconductors”
Osaka, Japan, May-04

“Ferromagnetism and Spin Transport in Semiconductors”
Trieste, Italy, May-04

“Excitonic BEC in Bilayer Quantum Hall Systems”
Pittsburg, PA, May-04

“Ferromagnetism and Spin Transport in Semiconductors”
San Francisco, CA, Apr-04

“Ferromagnetism and Spin Transport in Semiconductors”
Ohio University, Athens, OH, Apr-04

“Excitonic BEC in Bilayer Quantum Hall Systems”
Penn State University, State College, PA, Apr-04

“Theory of Anomalous Transport”
Montreal, QC, Canada, Mar-04

“Ferromagnetism and Spin Transport in Semiconductors”
Cal State Northridge, Los Angeles, CA, Mar-04

“Ferromagnetism and Spin Transport in Semiconductors”
San Jose, CA, Feb-04

“Excitonic BEC in Bilayer Quantum Hall Systems”
University of Chicago, Chicago, IL, Feb-04

“Ferromagnetism and Spin Transport in Semiconductors”
Nagoya, Japan, Nov-03

“Excitonic BEC in Bilayer Quantum Hall Systems”
Texas A&M, College Station, TX, Nov-03

“Ferromagnetism and Spin Transport in Semiconductors”
Barcelona, Spain, Oct-03

“Diluted Magnetic Semiconductor Ferromagnetism”
Santa Monica, CA, Oct-03

“Ferromagnetism and Spin Transport in Semiconductors”
Maui, HI, Sep-03

“The Boson FQHE: Rapidly Rotating Cold Atoms”
International Conference, Stuttgart, Germany, Jul-03

“Spintronics in Semiconductors”
3 lectures, Boulder Condensed Matter Physics School, Boulder, CO, Jul-03

“Collective Transport in Bilayer Quantum Hall Systems”
15th International Conferences, Nara, Japan, Jul-03

“The Boson FQHE: Rapidly Rotating Cold Atoms”
University of Pisa, Pisa, Italy, Jun-03

“The Boson FQHE: Rapidly Rotating Cold Atoms”
University of Karlsruhe, Karlsruhe, Germany, Jun-03

“Phenomenological Models of DMS Ferromagnetism”

CECAM Workshop, Lyon, France, Jun-03

“Ferromagnetism in Diluted Magnetic Semiconductors”

High Magnetic Field Lab, Grenoble, France, Jun-03

“Weak-Coupling Theory of Underdoped Cuprates”

Canadian Institute of Advanced Research, Vancouver, BC, Canada, May-03

“Progress in Theory of Ferromagnetism in Semiconductors/Intrinsic Spin-Hall Effect in Semiconductors”

DARPA, Apr-03

“Weak-Coupling Theory of Underdoped Cuprates”

Aspen Winter Conference, Buffalo, NY, Feb-03

“Weak-Coupling Theory of Cuprate Superconductors”

Columbia University, New York, NY, Jan-03

“Superfluid Properties of Quantum Hall Ferromagnets”

Columbia University, New York, NY, Jan-03

“Ferromagnetic Transition Metal Nanoparticles”

Lancaster University, Lancaster, England, UK, Jan-03

“Rapidly Rotating Bose Condensates”

Los Alamos National Lab, Las Alamos, NM, Dec-02

“Rapidly Rotating Bose Condensates”

University of North Carolina, Chapel Hill, NC, Nov-02

“Ferromagnetic Semiconductors”

Texas A&M University, College Station, TX, Nov-02

“Ferromagnetic Semiconductors”

Cornell University, Ithaca, NY, Nov-02

“Magnetic Semiconductors”

(LEES), New York, NY, Oct-02

“Ferromagnetic Semiconductors”
University of Cincinnati, Cincinnati, OH, Oct-02

“Ferromagnetic Semiconductors”
Johns Hopkins University, Baltimore, MD, Oct-02

“Spintronics in Semiconductors”
3 lectures, DARPA, Ft. Lauderdale, FL, Sep-02

“Spintronics in Quantum Hall Ferromagnets”
International Conference, Scotland, Aug-02

“Spintronics in Quantum Hall Ferromagnets”
International Conference, Hiroshima, Japan, Aug-02

“Spintronics”
NATO Advanced Study Institute, Erice, Sicily, Jul-02

“Spintronics in Quantum Hall Ferromagnets”
Workshop, Erice, Sicily, Jul-02

“Spintronics in Quantum Hall Ferromagnets”
Workshop, Xian, China, Jun-02

“Ferromagnetism in Magnetically Doped Semiconductors”
Workshop, Beijing, China, Jun-02

“Ferromagnetic Semiconductors”
Gordon Research Conference, Colby College, Waterville, ME, Jun-02

“Spintronics in Quantum Hall Ferromagnets”
Workshop, Minneapolis, MN, May-02

“Ferromagnetic Semiconductors”
University of California at San Diego, San Diego, CA, May-02

“Ferromagnetism in Diluted Magnetic Semiconductors and Transition Metal Ferromagnets”
NSF US-Italy Conference, Washington, D.C., Mar-02

“Ferromagnetic Semiconductors”

Workshop, Vanderbilt University, Nashville, TN, Feb-02

“Superfluid Properties of Quantum Hall Ferromagnets”

National High Magnetic Field Lab, Tallahassee, FL, Jan-02

“Ferromagnetism and Superfluidity in Bilayer QH Systems”

International Symposium, University of Wurzburg, Germany, Dec-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”

Oak Ridge National Lab, Computational Materials Institute, Oak Ridge, TN, Nov-01

“Quantum Hall Quantum Bits”

Workshop, UT Austin, Austin, Texas, Oct-01

“Metallic Nanoparticles”

Georgia Tech, Atlanta, GA, Oct-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”

Georgia Tech, Atlanta, GA, Oct-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”

UT Austin, Austin, TX, Oct-01

“Ferromagnetic Semiconductors”

Workshop, Oak Ridge, TN, Oct-01

“Charge Fluctuations in Quantum Hall Bilayers and Underdoped Cuprates”

Workshop, Kashiwa, Japan, Oct-01

“Quantum Description of Ferromagnetic Metal Nanoparticles”

Workshop, Institute for Theoretical Physics, Santa Barbara, CA, Aug-01

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”

Workshop, Washington, Aug-01

“Charge Fluctuations in Quantum Hall Bilayers and Underdoped Cuprates”

Workshop, Ann Arbor, MI, Aug-01

“Quantum Description of Ferromagnetic Metal Nanoparticles”
Workshop, National Center of Nanoscience, Beijing, China, Jun-01

“Quantum Description of Ferromagnetic Metal Nanoparticles”
Workshop, University of Science & Technology, Hefei, China, Jun-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
Argonne National Laboratory, Chicago, IL, Jun-01

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”
Workshop, Janczowic, Poland, Jun-01

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”
Workshop on Quantum Materials, Hamburg, Germany, Jun-01

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”
Workshop, Ile de Bendor, France, Jun-01

“Superfluid Properties of Quantum Hall Ferromagnets”
Los Alamos National Laboratory, Los Alamos, NM, Apr-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
Los Alamos National Laboratory, Los Alamos, NM, Apr-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
Clemson University, Clemson, SC, Apr-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
Rice University, Houston, TX, Mar-01

“Superfluid Properties of Quantum Hall Ferromagnets”
Workshop, Tokyo, Japan, Feb-01

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”
Workshop, Queenstown, New Zealand, Feb-01

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”
Workshop, Seoul, Korea, Feb-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
National Research Council of Canada, Ottawa, ON, Canada, Jan-01

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
University of Houston, Houston, TX, Jan-01

“Quantum Description of Ferromagnetic Metal Nanoparticles”
Workshop, Ascona, Switzerland, Oct-00

“Superfluid properties of quantum Hall ferromagnets”
Conference, Matsue, Japan, Sep-00

“Quantum Description of Ferromagnetic Metal Nanoparticles”
Workshop, Cortona, Italy, Jul-00

“III-xMnxV Ferromagnetism: Semiconductor Spintronics”
1st Washington Spintronics Conference, Washington DC, Jul-00

“de-Haas van Aalphen Oscillations in the Mixed State”
Boulder Summer School in Condensed Matter Physics, Boulder, CO, Jul-00

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
Ohio State University, Columbus, OH, May-00

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
University of Iowa, Iowa City, IA, Apr-00

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
McMaster University, Hamilton, ON, Canada, Apr-00

“III-xMnxV Ferromagnetism: Spintronics in Semiconductors”
University of Southern Illinois, Carbondale, IL Apr-00

“Superfluid Properties of Quantum Hall Ferromagnets”
Princeton University, Princeton, NJ, Mar-00

“Superfluid Properties of Quantum Hall Ferromagnets”
University of Lund, Sweden, Dec-99

“Superfluid Properties of Quantum Hall Ferromagnets”

Columbia University, New York, NY, Nov-99

“Quantum Hall Stripe State Physics”

A Celebration of the 65th Birthday of David Thouless, Seattle, WA, Sep-99

“New Surprises in Quantum Hall Physics”

Brown University, Providence, RI, Sep-99

“Quantum Hall Ferromagnets”

School on Exotic States in Quantum Nanostructures, London, England, UK, Aug-99

“Quantum Hall Stripe State Physics”

Workshop, Hamburg, Germany, Jul-99

“Quantum Hall Stripe State Physics”

Conference, Trieste, Italy, Jul-99

“Quantum Hall Ferromagnets”

Winter School J.J. Giambiagi, University of Buenos Aires, Argentina, Jul-99

“Spin-dependent Transport in Metals and Semiconductors”

Sitges Conference, Spain, Jun-99

“Optical Properties of Quantum Hall Ferromagnets”

NATO ARW, Ustron-Jaszowiec, Poland, Jun-99

“Quantum Hall Stripe State Physics”

Workshop, University of Minnesota, Minneapolis, MN, May-99

“Physics of Tunnel Junction Magnetoresistance”

Seagate Recording Heads, Minneapolis, MN, May-99

“Spin Electronics”

UT Austin, Austin, TX, Apr-99

“Spin-Dependent Tunneling in Metals and Semiconductors”

APS March Meeting, Atlanta, GA, Mar-99

“Spin Electronics”

University of Colorado, Boulder, CO, Mar-99

“Quantum Hall Ferromagnets”

University of California at Santa Barbara, Santa Barbara, CA, Nov-98

“Quantum Hall Ferromagnets”

Stanford University, Stanford, CA, Nov-98

“Quantum Hall Ferromagnets”

University of California at Santa Cruz, CA, Oct-98

“Quantum Hall Ferromagnets”

University of British Columbia, Vancouver, BC, Canada, Oct-98

“Electrodynamic Properties of the Vortex Lattice”

University of British Columbia, Vancouver, BC, Canada, Oct-98

“Carrier Induced Ferromagnetism in Diluted Magnetic Semiconductors”

Simon Fraser University, Vancouver, BC, Canada, Oct-98

“Electrodynamic Properties of the Vortex Lattice”

Indiana University, Bloomington, IN, Sep-98

“Critical Currents, Phase Slips and Turbulence in Mesoscopic Superconductors”

Indiana University, Bloomington, IN, Sep-98

“Ising Pseudospin Order and Hysteresis in Quantum Hall Ferromagnets”

University of Campinas, Brazil, Aug-98

“Electrodynamic Properties of the Vortex Lattice”

University of Campinas, Brazil, Aug-98

“Electrodynamic Properties of the Vortex Lattice”

Federal University of Rio de Janeiro, Brazil, Aug-98

“Carrier Induced Ferromagnetism in Diluted Magnetic Semiconductors”

University of Campinas, Brazil, Aug-98

“Weak Disorder in Strongly Interacting 2D Electron Systems”
CECAM Workshop, Torino, Italy, Jun-98

“Pseudospin Anisotropy and Hysterisis in Quantum Hall Ferromagnets”
XXII Condensed Matter Theories Workshop, Nashville, TN, Jun-98

“Pseudospin Anisotropy and Hysterisis in Quantum Hall Ferromagnets”
INFM Workshop on Semiconductor Nanostructures, Pisa, Italy, Jun-98

“Pseudospin Anisotropy and Hysterisis in Quantum Hall Ferromagnets”
INFM Annual Meeting, Rimini, Italy, Jun-98

“Ising Pseudospin Order and Hysterisis in Quantum Hall Ferromagnets”
UT Austin, Austin, TX, May-98

“Ising Pseudospin Order and Hysterisis in Quantum Hall Ferromagnets”
Northwestern University, Evanston, IL, May-98

“Ising Pseudospin Order and Hysterisis in Quantum Hall Ferromagnets”
California Institute of Technology, Pasadena, CA, Apr-98

“Ising Pseudospin Order and Hysterisis in Quantum Hall Ferromagnets”
University of Illinois, Champaign, IL, Apr-98

“Skyrmions and Skyrme Crystals in Quantum Hall Ferrogmagnets”
Harvard University, Cambridge, MA, Nov-97

“Excitonic Condensates in Electron-Hole Double Layers”
European Physical Society General Meeting, Leuven, Belgium, Aug-97

“Strong Correlations in Electronic Systems”
9th International Conference, Sydney, Australia, Jul-97

“Strong Correlations in a Landau Band: The Fractional Quantum Hall Effect and Beyond”
Asia Pacific Center for Theoretical Physics Summer, Seoul, Korea, Jun-97

“Fractional Quantum Hall Effect”
3 Lectures at the French “GDR” school, Aussois, France, Jun-97

“Excitonic Condensates in Electron-Hole Double Layers”

ETRI Taejon, Korea, Jun-97

“Skyrmions and Skyrme Crystals in Quantum Hall Ferromagnets”

University of Florida, Gainesville, FL, Apr-97

“Skyrmions and Skyrme Crystals in Quantum Hall Ferromagnets”

University of Michigan, Ann Arbor, MI, Apr-97

“Excitonic Condensates in Electron-Hole Double Layers”

Indiana University, Bloomington, IN, Apr-97

“Skyrmions and Skyrme Crystals in Quantum Hall Ferromagnets”

Michigan State University, East Lansing, MI, Mar-97

“Excitonic Condensates in Electron-Hole Double Layers”

MPI-FKF Stuttgart, Germany, Feb-97

“Vortex Solids and Vortex Fluids in the Lowest Landau Level Approximation”

Landau Level Approximation” Workshop, Trieste, Italy, Aug-96

“Skyrme Crystals in Quantum Hall Ferromagnets”

International Conference, Wurzburg, Germany, Jul-96

“Excitonic Bose Condensation in 2D Electron-Hole Double-Layer Systems”

Workshop, Trieste, Italy, Jul-96

“Excitonic Bose Condensation in 2D Electron-Hole Double-Layer Systems”

Nobel Symposium, Arild, Sweden, Jun-96

“Excitonic Bose Condensation in 2D Electron-Hole Double-Layer Systems”

ECAMI Workshop, Ottawa, ON, Canada, Jun-96

“2D to 2D Tunneling”

Workshop, Pisa Italy, Jun-96

“Skyrme Crystals”

Workshop at Minneapolis, MN, May-96

“Quantum Hall Ferromagnetism”

Workshop at Erwin Schroedinger Institute, Vienna, Austria, Aug-95

“Current Problems in the Theory of The Fractional Quantum Hall Effect”

4 lectures at the NATO, Bad Lauterberg, Germany, Aug-95

“Current Problems in the Theory of The Fractional Quantum Hall Effect”

Lectures at the Brazilian Workshop, Rio de Janerio, Brazil, Jul-95

“Some Recent Results in Fractional Quantum Hall Effect Theory”

3 Lectures at the Winter School, Bangalore, IN, Jan-95

“Novel Physics in Double-Layer Quantum Hall Systems”

Workshop at Madras, India, Jan-95

“Vortices in s-wave and d-wave superconductors”

University of British Columbia, Vancouver, BC, Canada, Dec-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall systems”

Minneapolis, MN, Dec-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

Ball State University, Muncie, IN, Nov-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum Hall Systems”

Technion Advanced Research Workshop, Nof Ginosar, Israel, Oct-94

“Introduction to the Quantum Hall Effect”

5 lectures at the Les Houches Summer School, Les Houches, France, Jul-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

The Technion, Haifa, Israel, Jun-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

Ben-Gurion University, Beer-Sheva, Israel, Jun-94

“Introduction to the Quantum Hall Effect”

4 lectures at the International Center for Theoretical Physics, Trieste, Italy, May-94

“Vortex-lattice melting in Anisotropic Superconductors”

AT&T Bell Labs, Apr-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

Penn State University, State College, PA, Apr-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

Ohio State University, Columbus, OH, Apr-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

University of Minnesota, Minneapolis, MN, Apr-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall systems”

University of Tennessee, Knoxville, TN, Feb-94

“Vortex-lattice melting in Anisotropic Superconductors”

Oak Ridge National Lab, Oak Ridge, TN, Jan-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

Purdue University, West Lafayette, IN, Jan-94

“Spontaneous Interlayer Coherence in Double-Layer Quantum-Hall Systems”

Johns Hopkins University, Baltimore, MD, Jan-94

“Commensurate-Incommensurate Phase Transitions in Double-Layer Quantum Hall Systems”

ENFISOL-4, Santiago, Chile, Jan-94

“One and One-half: Frontiers in FQHE Theory”

4th ISSP International Symposium, Tokyo, Japan, Nov-93

“Vortex-lattice melting in 2D Superconductors”

University of Florida, Gainesville, FL, Oct-93

“Vortex-lattice melting in 2D Superconductors”

Florida State University, Tallahassee, FL, Oct-93

“Spontaneous Interlayer Coherence in Double-Layer Systems”

University of Exeter, Exeter, England, UK, Sep-93

“Spontaneous Interlayer Coherence in Double-Layer Systems”

30th Anniversary of Solid State Communications, Oxford University, Oxford, England, UK, Sep-93

“Vortex-lattice Melting”

MISCON Workshop, Notre Dame University, Notre Dame, IN, Jul-93

“Coulomb Gaps in Strong Magnetic Fields”

University of Karlsruhe, Karlsruhe, Germany, Jun-93

“Coherent Interlayer Tunneling in Double-Layer Quantum Hall Systems”

International Workshop, Lauterberg, Germany, Jun-93

“Superconductivity in Extremely Strong Magnetic Fields”

University of Kentucky, Lexington, KY, Apr-93

“Superconductivity in Extremely Strong Magnetic Fields”

University of Illinois, Champaign, IL, Apr-93

“Do Superconductors Superconduct?”

University of Louisville, Louisville, KY, Apr-93

“Magnetoplasmons, Magnetorotons, and Magnetoexcitons”

American Physical Society, Seattle, WA, Mar-93

“Frictional Drag Between Nearby Two-Dimensional Electronic Systems”

Indiana University, Bloomington, ID, Feb-93

“Fractional Hall Quantum Dots”

University of Virginia, Charlottesville, VA, Feb-93

“Do Superconductors Superconduct?”

Antigonish, NS, Canada, Feb-93

“Lectures on the Quantum Hall Effect”

Australian National University Physics Summer School Canberra, Australia, Jan-93

“Frictional Drag Between Nearby Two-Dimensional Electronic Systems”

Czechoslovakian Academy of Sciences, Prague, CZ, Jan-93

“Fractional Hall Quantum Dots”

AT&T Bell Labs, Dec-92

“Superconductivity in Extremely Strong Magnetic Fields”

Concordia University, Montreal, ON, Canada, Oct-92

“Superconductivity in Extremely Strong Magnetic Fields”

University of Sherbrooke, Sherbrooke, QC, Canada, Oct-92

“Fractional Hall Quantum Dots”

Princeton University, Princeton, NJ, Oct-92

“Superconductivity in Extremely Strong Magnetic Fields”

Argonne Workshop, Lemont, IL, Aug-92

“Photoluminescence in the Fractional Hall Regime”

Gordon Godfrey Workshop, Sydney, Australia, Jul-92

“Magnetic Oscillations in Fractional Hall Dots”

University of New South Wales, Sydney, Australia, Jul-92

“The Fractional Quantum Hall Effect”

China Center for Advanced Science and Technology Summer School, Beijing, China, Jun-92

“Luminescence in the Fractional Hall Regime”

University of Munich, Munich, Germany, May-92

“Luminescence in the Fractional Hall Regime”

Max Planck Institut für Festkörperforschung, Stuttgart, Germany, May-92

“Edge Electronic Structure in the Fractional Hall Regime”

Max Planck -- Chernagolovka Joint Workshop, Stuttgart, Germany, May-92

“Superconductivity in Extremely Strong Magnetic Fields”

AT&T Bell Labs, Mar-92

“Electron Liquids and Solids in Very Strong Magnetic Fields”

Mauterndorf Winterschool, Austria, Feb-92

“Superconductivity in Very Strong Magnetic Fields”
University of British Columbia, Vancouver, BC, Canada, Dec-91

“Edge States in Integer and Fractional Quantum Hall Effects”
Simon Fraser University, Vancouver, BC, Canada, Dec-91

“Facts and Fantasies in FQHE theory”
Ohio University, Athens, OH, Nov-91

“Edge States in the Integer and Fractional Quantum Hall Effects”
University of Minnesota, Minneapolis, MN, Oct-91

“Anyons Anyone?”
University of Wisconsin, Madison, WI, Oct-91

“Superconductivity in Extremely Strong Magnetic Fields”
MISCON Meeting, Purdue University, West Lafayette, IN, Aug-91

“Facts and Fantasies in FQHE Theory”
National Research Council of Canada, Ottawa, ON, Canada, Aug-91

“Facts and Fantasies in FQHE Theory”
International Conference on Physics, Neuchatel, Switzerland, Aug-91

“The Quantum Hall Effects”
University of New South Wales, Sydney, Australia, Jul-91

“Edge Electronic Structure in the Fractional Hall Regime”
Institute for Theoretical Physics, Santa Barbara, CA, May-91

“Magnetophonons in the 2D Wigner Crystal”
University of Cincinnati, Cincinnati, OH, Feb-91

“Many-Body Physics in a Strong Magnetic Field”
Solid State Physics Conference, Santiago, Chile, Jan-91

“Many-Body Physics in a Strong Magnetic Field”
International Center for Condensed Matter Physics, Brazil, Jan-91

“Anyon Superconductivity”

University of Missouri, Columbia, MO, Jan-91

“Magnetophonons in the 2D Wigner Crystal”

Simon Frazer University, Vancouver, BC, Canada, Dec-90

“Anyon Superconductivity”

National Research Council of Canada, Ottawa, ON, Canada, Dec-90

“The 2D Wigner Crystal”

Northwestern University, Evanston, IL, Oct-90

“Magnetophonons in the 2D Wigner Crystal”

University of Florida, Gainesville, FL, Oct-90

“Magnetophonons in the 2D Wigner Crystal”

M.I.T., Cambridge, MA, Oct-90

“Magnetophonons in the 2D Wigner Crystal”

S.U.N.Y. Stony Brook, NY, Oct-90

“Half the Story”

Yale 2D, Yale University, New Haven, CT, Oct-90

“Magnetophonons in the 2D Wigner Crystal”

University of Maryland, College Park, MD, Sep-90

“Measuring fractional charges”

Aspen Center for Physics, Aspen, CO, Jul-90

“Photoluminescence in the fractional quantum Hall regime”

MPIF, Stuttgart, Germany, Jun-90

“Anyon superconductivity”

MPIF, Stuttgart, Germany, Jun-90

“Edge Magnetoplasmons in the Quantum Hall Regime”

MPIF, Stuttgart, Germany, May-90

“The Quantum Hall Effects”

NATO ASI, Les Arcs, France, Apr-90

“Edge Magnetoplasmons in the Quantum Hall Regime”

AT&T Bell Labs, Holmdel, NJ, Jan-90

“Edge Magnetoplasmons in the Quantum Hall Regime”

Yale University, New Haven, CT, Nov-89

“The Fractional Hall Effect”

University of Hamburg, Hamburg, Germany, Jul-89

“ t/U Expansion of the Hubbard Model”

MPI für Festkörperforschung, Stuttgart, Germany, Jul-89

“The Fractional Hall Effect in Two-Layer and Multilayer Systems”

AT&T Bell Labs, Jun-89

“The Fractional Hall Effect in Two-Layer and Multilayer Systems”

Ohio State University, Columbus, OH, Apr-89

“The Quantum Hall Effect”

Purdue University, Indianapolis, IN Apr-89

“The Quantum Hall Effect”

Indiana State University, Terre Haute, IN, Apr-89

“The Fractional Hall Effect in Two-Layer and Multilayer Systems”

University of Minnesota, Minneapolis, MN, Apr-89

“Landauer Formulas and the Quantum Hall Effect”

IBM T.J. Watson Labs, Feb-89

“Landauer Formulas and the Quantum Hall Effect”

Indiana University, Bloomington, IN, Feb-89

“The Quantum Hall Effect”

Solid State Physics Conference, Santiago, Chile, Jan-89

“Landauer Formulas and the Quantum Hall Effect”

Argonne National Lab, Lemont, IL, Jan-89

“Landauer Formulas and the Quantum Hall Effect”

National Research Council, Ottawa, ON, Canada, Oct-88

“Landauer Formulas and the Quantum Hall Effect”

University of Minnesota, Minneapolis, MN, Oct-88

“The Two-Component Fractional Quantum Hall Effect”

MPI fur Festkorperforschung, Stuttgart, Germany, Jun-88

“The Quantum Hall Effect”

Oulu, Finland, Jun-88

“ODLRO in the FQHE and Quantum Spin Systems”

MPI fur Festkorperforschung, Stuttgart, Germany, Jun-88

“The Two-Component Fractional Quantum Hall Effect”

University of Illinois, Champaign, IL, Apr-88

“The Two-Component Fractional Quantum Hall Effect”

University of Michigan, Ann Arbor, MI, Feb-88

“The Fractional Quantum Hall Effect”

University of Kentucky, Lexington, KY, Nov-87

“Fractional Quantum Hall Effect”

Oak Ridge National Lab, Oak Ridge, TN, Nov-87

“The Fractional Quantum Hall Effect”

University of Toronto, ON, Canada, Oct-87

“Raman Scattering in Fibonacci Superlattices”

University of Alberta, Edmonton, AB, Canada, Apr-87

“Raman Scattering in Fibonacci Superlattices”

Waterloo University, Waterloo, ON, Canada, Mar-87

“Raman Scattering in Fibonacci Superlattices”

University of California at Davis, Davis, CA, Feb-87

“Raman Scattering in Fibonacci Superlattices”

Indiana University, Bloomington, IN, Feb-87

“Fractional Quantum Hall Effect”

Ottawa, ON, Canada, Feb-87

“Raman Scattering in Fibonacci Superlattices”

MPI fur Festkorperforschung, Stuttgart, Germany, Jan-87

“ODLRO and the Fractional Quantum Hall Effect”

ETH-Zurich, Switzerland, Jan-87

“Fractional Quantum Hall Effect”

MPI fur Festkorperforschung, Stuttgart, Germany, Jan-87

“Fractional Quantum Hall Effect”

University of Florida, Gainesville, FL, Jan-87

“Fractional Quantum Hall Effect”

SUNY at Buffalo, Buffalo, NY, Oct-86

“Fractional Quantum Hall Effect”

University of Western Ontario, London, ON, Canada, Oct-86

“Density-wave Instabilities and Thermoelectric Parameters in the Alkali Metals”

National Bureau of Standards, Washington, DC, Apr-86

“Collective Excitations in the Fractional Quantum Hall Effect”

Brown University, Providence, RI, Apr-86

“The Fractional Quantum Hall Effect”

Tohoku University, Japan, Mar-86

“The Fractional Quantum Hall Effect”

Electrotechnical Institute, Japan, Mar-86

“Collective Excitations in the Fractional Quantum Hall Effect”

Research Institute for Iron, Steel and Other Metals, Japan, Mar-86

“Collective Excitations in the Fractional Quantum Hall Effect”

Institute for Solid State Physics, Japan, Mar-86

“The Fractional Quantum Hall Effect”

University of Hong Kong, China, Feb-86

“The Fractional Quantum Hall Effect”

University of Kyushu, Japan, Feb-86

“The Fractional Quantum Hall Effect”

Queen's University, Kingston, ON, Canada, Nov-85

“The Fractional Quantum Hall Effect”

University of Manitoba, Winnipeg, MB, Canada, Oct-85

“The Fractional Quantum Hall Effect”

Memorial University of Newfoundland, Canada, Oct-85

“The Fractional Quantum Hall Effect”

Max-Planck Institute, Grenoble, France, May-85

“The Fractional Quantum Hall Effect”

L'Ecole Normale Superieure, Paris, France, May-85

“The Fractional Quantum Hall Effect”

IBM T.J. Watson Research Center, Yorktown Heights, NY, Mar-85

“The Fractional Quantum Hall Effect”

University of Illinois, Champaign, IL, Feb-85

“The Fractional Quantum Hall Effect”

McMaster University, Hamilton, ON, Canada, Nov-84

“The Fractional Quantum Hall Effect”

University of Toronto, Toronto, ON, Canada, Oct-84

“The Fractional Quantum Hall Effect”

Cornell University, Ithaca, NY, Oct-84

“Edge States and the Quantum Hall Effect”

University of Sherbrooke, Sherbrooke, QC, Canada, Feb-84

“Edge States and the Quantum Hall Effect”

McGill University, Montreal, QC, Canada, Feb-84

“Edge States and the Quantum Hall Effect”

St. Francis Xavier University, Antigonish, NS, Canada, Oct-83

“Edge States and the Quantum Hall Effect”

Dalhousie University, Halifax, NS, Canada, Oct-83

“Quantum Hall Effect in a Periodic Potential”

E.T.H. Zurich, Switzerland, Jun-83

“Quantum Hall Effect in a Periodic Potential”

Imperial College, London, England, UK, May-83

“Quantum Hall Effect in a Periodic Potential”

University of Bristol, England, UK, May-83

“Quantum Hall Effect in a Periodic Potential”

Daresbury National Lab, England, UK, May-83

“Quantum Hall Effect in a Periodic Potential”

Free University of Amsterdam, Netherlands, May-83

“Quantum Hall Effect in a Periodic Potential”

Cambridge University, Cambridge, England, UK, May-83

“Quantum Hall Effect in a Periodic Potential”

University of Geneva, Switzerland, Feb-83

“Point Contact Spectroscopy”

Max-Planck Institute, Stuttgart, Germany, Nov-82

“Point Contact Spectroscopy”

University of Toronto, Toronto, ON, Canada, Nov-81

“Point Contact Spectroscopy”

Oak Ridge, TN, Oct-81

“Umklapp Electron-Electron Scattering in the Alkali Metals”

University of Alberta, Edmonton, Alberta, Canada, Jan-81

“Susceptibility Anisotropy in Transition Metal Dichalcogenides”

University of Alberta, Edmonton, Alberta, Canada, Jan-81

“Susceptibility Anisotropy in Transition Metal Dichalcogenides”

Simon Fraser University, Edmonton, Alberta, Canada, Jan-81

“Susceptibility Anisotropy in Transition-Metal Dichalcogenides”

Michigan State University, East Lansing, MI, Nov-80

“Alkali Metal Quasiparticle Dynamics”

National Research Council, Ottawa, ON, Canada, Nov-80

“Umklapp Electron-Electron Scattering in the Alkali Metals”

University of Ottawa, ON, Canada, Sep-80

“Electron-Electron Scattering in Metals”

Queen's University, Kingston, ON, Canada, Feb-80

Dalhousie University, Halifax, NS, Canada, Jan-80

“Electron-Electron Scattering in Metals”

St. Francis Xavier University, Antigonish, NS, Canada, Jan-80

“Relativistic Density Functional Formalism”

Argonne National Labs. Argonne, IL, Jan-79

“Relativistic Density Functional Formalism”

National Research Council, Ottawa, ON, Canada, Feb-78

“Excitonic BEC in Bilayer Quantum Hall Systems”

University of Colorado, Boulder, CO, Jun-05

“Off-Diagonal Long Range Order in the Quantum Hall Effect”

American Physical Society St. Louis, MO, 1989

“Fractional Hall Effect in Multi-Component Systems”
Eighth International Conference, Grenoble, France, 1989

“The Fractional Quantum Hall Effect”
5th International Conference, Oulu, Finland, 1987

“Fibonacci Superlattices”
NATO ASI on Interfaces, Superlattices and Quantum Wells Banff, Alberta, Canada, 1987

“Electrons in Strong Magnetic Fields”
Canadian Association of Physicists Congress, Toronto, ON, Canada, 1987

“The Fractional Quantum Hall Effect”
Gordon Research Conference, Wolfeboro, NH, 1986

“Classical Plasmas, Quantum Fluids and the Fractional Quantum Hall Effect”
Canadian Association of Physicists Congress, Fredericton, NB, Canada, 1985

“The Quantum Hall Effect”
International Center for Theoretical Physics, Trieste, Italy, 1983

“Relativistic Effects in Metals”
NATO ASI on Relativistic Effects in Atoms, Molecules, and Solids Vancouver, BC, Canada, 1981
“Electron-electron Interactions in Simple-metals and Transition-metals”
International Conference on Transport Metals, Ottawa, ON, Canada, 1981