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Education

Harvard University

Ph.D. 1997

Dissertation Title: Cryogenic Scanning Probe Microscopy
for Semiconductor Nanostructures

A.M. 1994

University of Wisconsin-Madison

B.S. with Honors in Physics and Mathematics, 1992

Positions

2016-present	Vilas Distinguished Achievement Professor Department of Physics, University of Wisconsin-Madison
2007-2016	Professor, Department of Physics, University of Wisconsin-Madison
2008-2009	Professorial Visiting Fellow (Sept. 2008-May 2009) School of Physics, Faculty of Science, University of New South Wales
2004-2007	Associate Professor Department of Physics, University of Wisconsin-Madison
1999-2004	Assistant Professor Department of Physics, University of Wisconsin-Madison
1997-1999	Postdoctoral Member of Technical Staff Bell Laboratories, Lucent Technologies
1996-1997	Teaching Fellow and Research Assistant, Harvard University
1995-1996	Harvard Merit Fellow, Harvard University
1994	Teaching Fellow, Harvard University
1992-1995	NSF Graduate Fellow, Harvard University

Honors and Awards

Vilas Associates Award, University of Wisconsin-Madison (2018)
Fellow, American Association for the Advancement of Science (2015)
Kellett Mid-Career Award, University of Wisconsin-Madison (2013)
Fellow, American Physical Society (2012)
CAREER Award, National Science Foundation (2001-2006)
Research Innovation Award, Research Corporation (2001)
Goldhaber Prize, Harvard Physics (1995)
Graduate Fellow, National Science Foundation (1992-95)
Phi Beta Kappa (1991)

Scientific Society Affiliations

APS, AAAS, MRS, AVS, and IEEE

Highlights of Scholarly Activities

- 30 papers published in Physical Review Letters, Nature, Nature Physics, Nature Materials, Nature Nanotechnology, Nature Communications, or PNAS.
- Co-author of an invited review of silicon as a host for spin qubits published in Nature [*click pdf for link to web*].
- Co-author of a review of silicon quantum electronics published in Reviews of Modern Physics [*click pdf for link to web*].
- Organizer or co-organizer for four international workshops on silicon quantum electronics, one in 2007, one in 2011, one in 2016, and most recently the 2017 workshop held in Portland, Oregon, USA.
- Delivered more than 145 invited presentations at conferences, colloquia, and seminars.
- Google scholar page link: [*click pdf for link to web*].

Chapters of Books:

3. “Si/SiGe Quantum Devices, Quantum Wells, and Electron-Spin Coherence,” by J. L. Truitt, K. A. Slinker, K. L. M. Lewis, D. E. Savage, C. Tahan, L. J. Klein, R. Joynt, M. G. Lagally, D. W. van der Weide, S. N. Coppersmith, M. Friesen and M. A. Eriksson, in *Topics in Applied Physics, vol. 115: Electron Spin Resonance and Related Phenomena in Low-Dimensional Structures*, Ed. M. Fanciulli (Springer-Verlag, Berlin, 2009), p. 101.
2. “Chromic Transitions and Nanomechanical Properties of (Poly)diacetylene Molecular Films,” R.W. Carpick, A.R. Burns, D.Y. Sasaki, M. A. Eriksson, M.S. Marcus. In: *Chromogenic Phenomena in Polymers: Tunable Optical Properties*, Eds. D. Kiserow and S.A. Jenekhe (ACS Books) 2004.
1. L.L. Sohn, C.T. Black, M.A. Eriksson, M. Crommie, and H. Hess, “Scanning Probe Microscopes and their Applications,” in *Mesoscopic Electron Transport*, NATO ASI Series E 345, ed. by L.L. Sohn, L.P. Kouwenhoven, and G. Schon (Kluwer, 1997).

Journal Publications

110. “Compressed Optimization of Device Architectures (CODA) for semiconductor quantum devices.” Adam Frees, John King Gamble, D. R. Ward, R. Blume-Kohout, M. A. Eriksson, Mark Friesen, and S. N. Coppersmith, *submitted to Phys. Rev. Applied*
109. “Signatures of atomic-scale structure in the energy dispersion and coherence of a Si quantum-dot qubit.” J. C. Abadillo-Uriel, B. Thorgrimsson, Dohun Kim, L. W. Smith, C. B. Simmons, D. R. Ward, R. H. Foote, J. Corrigan, D. E. Savage, M. G. Lagally, M. J. Calderon, S. N. Coppersmith, M. A. Eriksson, and Mark Friesen, *submitted to ACS Appl. Mat. Int.*

108. “Interfacial thermal resistance in InAlAs/InGaAs superlattices.” G. R. Jaffe, S. Mei, C. Boyle, J. D. Kirch, D. E. Savage, D. Botez, L. J. Mawst, I. Knezevic, M. G. Lagally, and M. A. Eriksson, *submitted to Phys. Rev. Lett.*
107. “The critical role of substrate disorder in valley splitting in Si quantum wells.” S. F. Neyens, R. H. Foote, B. Thorgrimsson, T. J. Knapp, T. McJunkin, L. M. K. Vandersypen, P. Amin, N. K. Thomas, J. S. Clarke, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Appl. Phys. Lett.* **112**, 243107 (2018).
106. “Valley dependent anisotropic spin splitting in silicon quantum dots.” Rifat Ferdous, E. Kawakami, P. Scarlino, Michal P. Nowak, D. R. Ward, D. E. Savage, M. G. Lagally, S. N. Coppersmith, Mark Friesen, M. A. Eriksson, L. M. K. Vandersypen, and Rajib Rahman, *npj Quant. Inf.* **4**, 26 (2018).
105. “A programmable two-qubit quantum processor in silicon.” T. F. Watson, S. G. J. Philips, E. Kawakami, D. R. Ward, P. Scarlino, M. Veldhorst, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, M. A. Eriksson, and L. M. K. Vandersypen, *Nature* **555**, 633 (2018).
104. “Electronic Transport in Hydrogen-Terminated Si(001) Nanomembranes.” W. Peng, M. Zamiri, Shelley A. Scott, F. Cavallo, J. J. Endres, I. Knezevic, M. A. Eriksson, and M. G. Lagally, *Phys. Rev. Applied* **9**, 024037 (2018).
103. “Silicon Nanomembranes with Hybrid Crystal Orientations and Strain States.” Shelley A. Scott, Christoph Deneke, D. M. Paskiewicz, Hyuk Ju Ryu, Angelo Malachias, Stefan Bau-nack, Oliver G. Schmidt, D. E. Savage, M. A. Eriksson, and M. G. Lagally, *ACS Appl. Mat. Int.* **9**, 42372 (2017).
102. “Effects of charge noise on a pulse-gated singlet-triplet S-T₀ qubit.” Zhenyi Qi, X. Wu, D. R. Ward, J. R. Prance, Dohun Kim, John King Gamble, R. T. Mohr, Zhan Shi, D. E. Savage, M. G. Lagally, M. A. Eriksson, Mark Friesen, S. N. Coppersmith, and M. G. Vavilov, *Phys. Rev. B* **96**, 115305 (2017).
101. “Extending the coherence of a quantum dot hybrid qubit.” B. Thorgrimsson, Dohun Kim, Yuan-Chi Yang, L. W. Smith, C. B. Simmons, D. R. Ward, R. H. Foote, J. Corrigan, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *npj Quant. Inf.* **3**, 32 (2017).
100. “A decoherence-free subspace in a charge quadrupole qubit.” Mark Friesen, J. Ghosh, M. A. Eriksson, and S. N. Coppersmith, *Nature Comm.* **8**, 15923 (2017).
99. “Dressed photon-orbital states in a quantum dot: Inter-valley spin resonance.” P. Scarlino, E. Kawakami, T. Jullien, D. R. Ward, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, M. A. Eriksson, and L. M. K. Vandersypen, *Phys. Rev. B* **95**, 165429 (2017).

98. "Gate fidelity and coherence of an electron spin in an Si/SiGe quantum dot with micromagnet." E. Kawakami, T. Jullien, P. Scarlino, D. R. Ward, D. E. Savage, M. G. Lagally, V. V. Dobrovitski, Mark Friesen, S. N. Coppersmith, M. A. Eriksson, and L. M. K. Vandersypen, *Proc. Natl. Acad. Sci.* **113**, 11738 (2016).
97. "State-conditional coherent charge qubit oscillations in a Si/SiGe quadruple quantum dot." D. R. Ward, Dohun Kim, D. E. Savage, M. G. Lagally, R. H. Foote, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *npj Quant. Inf.* **2**, 16032 (2016).
96. "Combining experiment and optical simulation in coherent X-ray nanobeam characterization of Si/SiGe semiconductor heterostructures." J. A. Tilka, J. Park, Y. Ahn, A. Pateras, K. C. Sampson, D. E. Savage, J. R. Prance, C. B. Simmons, S. N. Coppersmith, M. A. Eriksson, M. G. Lagally, M. V. Holt, and Paul G. Evans, *J. Appl. Phys.* **120**, 015304 (2016).
95. "Electrode-stress-induced nanoscale disorder in Si quantum electronic devices." J. Park, Y. Ahn, J. A. Tilka, K. C. Sampson, D. E. Savage, J. R. Prance, C. B. Simmons, M. G. Lagally, S. N. Coppersmith, M. A. Eriksson, M. V. Holt, and Paul G. Evans, *APL Materials* **4**, 066102 (2016).
94. "Characterization of a gate-defined double quantum dot in a Si/SiGe nanomembrane." T. J. Knapp, R. T. Mohr, Y. S. Li, B. Thorgrimsson, R. H. Foote, X. Wu, D. R. Ward, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Nanotech.* **27**, 154002 (2016).
93. "Thermal resistance of transferred silicon nanomembrane interfaces." D. P. Schroeder, Z. Aksamija, A. Rath, P. M. Voyles, M. G. Lagally, and M. A. Eriksson, *Phys. Rev. Lett.* **115**, 256101 (2015).
92. "High-fidelity resonant gating of a silicon-based quantum dot hybrid qubit." Dohun Kim, D. R. Ward, C. B. Simmons, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *npj Quant. Inf.* **1**, 15004 (2015).
91. "Transport through an impurity tunnel coupled to a Si/SiGe quantum dot." R. H. Foote, D. R. Ward, J. R. Prance, John King Gamble, E. Nielsen, B. Thorgrimsson, D. E. Savage, A. L. Saraiva, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Appl. Phys. Lett.* **107**, 103112 (2015).
90. "Second Harmonic Coherent Driving of a Spin Qubit in a Si/SiGe Quantum Dot." P. Scarlino, E. Kawakami, D. R. Ward, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, M. A. Eriksson, and L. M. K. Vandersypen, *Phys. Rev. Lett.* **115**, 106802 (2015).
89. "High Fidelity Singlet-Triplet S-T₋ Qubits in Inhomogeneous Magnetic Fields." C. H. Wong, M. A. Eriksson, S. N. Coppersmith, and Mark Friesen, *Phys. Rev. B* **92**, 045403 (2015).

88. "Electronic Transport Properties of Epitaxial Si/SiGe Heterostructures Grown on Single-Crystal SiGe Nanomembranes." Y. S. Li, P. Sookchoo, X. Cui, R. T. Mohr, D. E. Savage, R. H. Foote, R. B. Jacobson, J. R. Sanchez-Perez, D. M. Paskiewicz, X. Wu, D. R. Ward, S. N. Coppersmith, M. A. Eriksson, and M. G. Lagally, *ACS Nano* **9**, 4891 (2015).
87. "Identifying single electron charge sensor events using wavelet edge detection." J. R. Prance, B. J. Van Bael, C. B. Simmons, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Nanotech.* **26**, 215201 (2015).
86. "Microwave-driven coherent operations of a semiconductor quantum dot charge qubit." Dohun Kim, D. R. Ward, C. B. Simmons, John King Gamble, R. Blume-Kohout, E. Nielsen, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Nature Nanotech.* **10**, 243 (2015).
85. "Exceptional Charge Transport Properties of Graphene on Germanium." F. Cavallo, R. R. Delgado, M. M. Kelly, J. R. S. Perez, D. P. Schroeder, H. G. Xing, M. A. Eriksson, and M. G. Lagally, *ACS Nano* **8**, 10237 (2014).
84. "Two-axis control of a singlet-triplet qubit with an integrated micromagnet." X. Wu, D. R. Ward, J. R. Prance, Dohun Kim, John King Gamble, R. T. Mohr, Zhan Shi, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Proc. Natl. Acad. Sci.* **111**, 11938 (2014).
83. "Electrical control of a long-lived spin qubit in a Si/SiGe quantum dot." E. Kawakami, P. Scarlino, D. R. Ward, F. R. Braakman, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, M. A. Eriksson, and L. M. K. Vandersypen, *Nature Nanotech.* **9**, 666 (2014).
82. "Quantum control and process tomography of a semiconductor quantum dot hybrid qubit." Dohun Kim, Zhan Shi, C. B. Simmons, D. R. Ward, J. R. Prance, Teck Seng Koh, John King Gamble, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Nature* **511**, 70 (2014).
81. "Signatures of the valley Kondo effect in Si/SiGe quantum dot." Mingyun Yuan, Zhen Yang, Chunyang Tang, A. J. Rimberg, Robert Joynt, D. E. Savage, M. G. Lagally, and M. A. Eriksson, *Phys. Rev. B* **90**, 035302 (2014).
80. "Fast coherent manipulation of three-electron states in a double quantum dot." Zhan Shi, C. B. Simmons, D. R. Ward, J. R. Prance, X. Wu, Teck Seng Koh, John King Gamble, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Nature Comm.* **5**, 3020 (2014).
79. "Semiconductor Quantum Dot Qubits." M. A. Eriksson, S. N. Coppersmith, and M. G. Lagally, *MRS Bulletin* **38**, 794 (2013).
78. "Functionalization of Single-Wall Carbon Nanotubes with Chromophores of Opposite Internal Dipole Orientation." Yuanchun Zhao, Changshui Huang, M. Kim, Bryan M. Wong, F. Leonard, P. Gopalan, and M. A. Eriksson, *ACS Appl. Mat. Int.* **5**, 9355 (2013).

77. "Excitation of a Si/SiGe quantum dot using an on-chip microwave antenna." E. Kawakami, P. Scarlino, L. R. Schreiber, J. R. Prance, D. E. Savage, M. G. Lagally, M. A. Eriksson, and L. M. K. Vandersypen, *Appl. Phys. Lett.* **103**, 132410 (2013).
76. "Coherent quantum oscillations and echo measurements of a Si charge qubit." Zhan Shi, C. B. Simmons, D. R. Ward, J. R. Prance, R. T. Mohr, Teck Seng Koh, John King Gamble, X. Wu, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Phys. Rev. B* **88**, 075416 (2013).
75. "Disorder-induced valley-orbit hybrid states in Si quantum dots." John King Gamble, M. A. Eriksson, S. N. Coppersmith, and Mark Friesen, *Phys. Rev. B* **88**, 035310 (2013).
74. "Silicon Quantum Electronics." F. A. Zwanenburg, Andrew S. Dzurak, Andrea Morello, Michelle Y. Simmons, L. C. L. Hollenberg, Gerhard Klimeck, S. Rogge, S. N. Coppersmith, and M. A. Eriksson, *Rev. Mod. Phys.* **85**, 961 (2013).
73. "Integration of on-chip field-effect transistor switches with dopantless Si/SiGe quantum dots for high-throughput testing." D. R. Ward, D. E. Savage, M. G. Lagally, S. N. Coppersmith, and M. A. Eriksson, *Appl. Phys. Lett.* **102**, 213107 (2013).
72. "Probing the electronic structure at semiconductor surfaces using charge transport in nanomembranes." W. Peng, Z. Aksamija, Shelley A. Scott, J. J. Endres, D. E. Savage, I. Knezevic, M. A. Eriksson, and M. G. Lagally, *Nature Comm.* **4**, 1339 (2013).
71. "Molecular Orientation and Photoswitching Kinetics on Single-Walled Carbon Nanotubes by Optical Second Harmonic Generation." David J. McGee, Changshui Huang, M. Kim, J. W. Choi, M. A. Eriksson, and P. Gopalan, *Appl. Phys. Lett.* **101**, 264101 (2012).
70. "Pulse-gated quantum dot hybrid qubit." Teck Seng Koh, John King Gamble, Mark Friesen, M. A. Eriksson, and S. N. Coppersmith, *Phys. Rev. Lett.* **109**, 250503 (2012).
69. "Charge sensing in a Si/SiGe quantum dot with a radio frequency superconducting single-electron transistor." Mingyun Yuan, Zhen Yang, D. E. Savage, M. G. Lagally, M. A. Eriksson, and A. J. Rimberg, *Appl. Phys. Lett.* **101**, 142103 (2012).
68. "Nanoscale Distortions of Si Quantum Wells in Si/SiGe Quantum-Electronic Heterostructures." Paul G. Evans, D. E. Savage, J. R. Prance, C. B. Simmons, M. G. Lagally, S. N. Coppersmith, M. A. Eriksson, and T. U. Schulli, *Advanced Materials* **24**, 5217 (2012).
67. "A fast "hybrid" silicon double quantum dot qubit." Zhan Shi, C. B. Simmons, J. R. Prance, John King Gamble, Teck Seng Koh, Yun-Pil Shim, Xuedong Hu, D. E. Savage, M. G. Lagally, M. A. Eriksson, Mark Friesen, and S. N. Coppersmith, *Phys. Rev. Lett.* **108**, 140503 (2012).
66. "Single-shot measurement of triplet-singlet relaxation in a Si/SiGe double quantum dot." J. R. Prance, Zhan Shi, C. B. Simmons, D. E. Savage, M. G. Lagally, L. R. Schreiber, L. M. K. Vandersypen, Mark Friesen, Robert Joynt, S. N. Coppersmith, and M. A. Eriksson, *Phys. Rev. Lett.* **108**, 046808 (2012).

65. "Tunable singlet-triplet splitting in a few-electron Si/SiGe quantum dot." Zhan Shi, C. B. Simmons, J. R. Prance, John King Gamble, Mark Friesen, D. E. Savage, M. G. Lagally, S. N. Coppersmith, and M. A. Eriksson, *Appl. Phys. Lett.* **99**, 233108 (2011).
64. "Embracing the quantum limit in silicon computing." John J. L. Morton, Dane R. McCamey, M. A. Eriksson, and S. A. Lyon, *Nature* **479**, 345 (2011).
63. "Spectroscopic Properties of Nanotube-Chromophore Hybrids." Changshui Huang, Randy K. Wang, Bryan M. Wong, David J. McGee, F. Leonard, Yunjun Kim, Kirsten F. Johnson, Michael S. Arnold, M. A. Eriksson, and P. Gopalan, *ACS Nano* **5**, 7767 (2011).
62. "Single-shot measurement and tunnel-rate spectroscopy of a Si/SiGe few-electron quantum dot." Madhu Thalakulam, C. B. Simmons, B. J. Van Bael, B. M. Rosemeyer, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Phys. Rev. B* **84**, 045307 (2011).
61. "Unconventional Transport in the "Hole" Regime of a Si Double Quantum Dot." Teck Seng Koh, C. B. Simmons, M. A. Eriksson, S. N. Coppersmith, and Mark Friesen, *Phys. Rev. Lett.* **106**, 186801 (2011).
60. "Tunable Spin Loading and T_1 of a Silicon Spin Qubit Measured by Single-Shot Readout." C. B. Simmons, J. R. Prance, B. J. Van Bael, Teck Seng Koh, Zhan Shi, D. E. Savage, M. G. Lagally, Robert Joynt, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Phys. Rev. Lett.* **106**, 156804 (2011).
59. "Si/SiGe quantum dot with superconducting single-electron transistor charge sensor." Mingyun Yuan, Feng Pan, Zhen Yang, T. J. Gilheart, Fei Chen, D. E. Savage, M. G. Lagally, M. A. Eriksson, and A. J. Rimberg, *Appl. Phys. Lett.* **98**, 142104 (2011).
58. "Distance Dependence of Neuronal Growth on Nanopatterned Gold Surfaces." C. Staii, C. Viesselmann, J. Ballweg, J. C. Williams, E. W. Dent, S. N. Coppersmith, and M. A. Eriksson, *Langmuir* **27**, 233 (2011).
57. "Pauli spin blockade and lifetime-enhanced transport in a Si/SiGe double quantum dot." C. B. Simmons, Teck Seng Koh, Nakul Shaji, Madhu Thalakulam, L. J. Klein, Hua Qin, H. Luo, D. E. Savage, M. G. Lagally, A. J. Rimberg, Robert Joynt, R. Blick, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Phys. Rev. B* **82**, 245312 (2010).
56. "Quantitative Determination of Contributions to the Thermoelectric Power Factor in Si Nanostructures." Hyuk Ju Ryu, Z. Aksamija, D. M. Paskiewicz, Shelley A. Scott, M. G. Lagally, I. Knezevic, and M. A. Eriksson, *Phys. Rev. Lett.* **105**, 256601 (2010).
55. "Double quantum dot with tunable coupling in an enhancement-mode silicon metal-oxide semiconductor device with lateral geometry." L. A. Tracy, E. P. Nordberg, R. W. Young, C. Borrás Pinilla, H. L. Stalford, G. A. Ten Eyck, K. Eng, K. D. Childs, J. R. Wendt, R. K. Grubbs, J. Stevens, M. P. Lilly, M. A. Eriksson, and M. S. Carroll, *Appl. Phys. Lett.* **97**, 192110 (2010).

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53. "Electron tunnel rates in a donor-silicon single electron transistor hybrid." Hans Huebl, Christopher D. Nugroho, Andrea Morello, Christopher C. Escott, M. A. Eriksson, Changyi Yang, David N. Jamieson, Robert G. Clark, and Andrew S. Dzurak, *Phys. Rev. B* **81**, 235318 (2010).
52. "Fast tunnel rates in Si/SiGe one-electron single and double quantum dots." Madhu Thalakulam, C. B. Simmons, B. M. Rosemeyer, D. E. Savage, M. G. Lagally, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Appl. Phys. Lett.* **96**, 183104 (2010).
51. "Valley splitting in a Si/SiGe quantum point contact." L. M. McGuire, Mark Friesen, K. A. Slinker, S. N. Coppersmith, and M. A. Eriksson, *N. Journ. Phys.* **12**, 033039 (2010).
50. "Charge sensing in enhancement mode double-top-gated metal-oxide-semiconductor quantum dots." E. P. Nordberg, H. L. Stalford, R. W. Young, G. A. Ten Eyck, K. Eng, L. A. Tracy, K. D. Childs, A. E. Wendt, R. K. Grubbs, J. Stevens, M. P. Lilly, M. A. Eriksson, and M. S. Carroll, *Appl. Phys. Lett.* **95**, 202102 (2009).
49. "Enhancement-mode double-top-gated metal-oxide-semiconductor nanostructures with tunable lateral geometry." E. P. Nordberg, G. A. Ten Eyck, H. L. Stalford, R. P. Muller, R. W. Young, K. Eng, L. A. Tracy, K. D. Childs, J. R. Wendt, R. K. Grubbs, J. Stevens, M. P. Lilly, M. A. Eriksson, and M. S. Carroll, *Phys. Rev. B* **80**, 115331 (2009).
48. "Charge Sensing and Controllable Tunnel Coupling in a Si/SiGe Double Quantum Dot." C. B. Simmons, Madhu Thalakulam, B. M. Rosemeyer, B. J. Van Bael, E. K. Sackmann, D. E. Savage, M. G. Lagally, Robert Joynt, Mark Friesen, S. N. Coppersmith, and M. A. Eriksson, *Nano Lett.* **9**, 3234 (2009).
47. "Influence of Surface Chemical Modification on Charge Transport Properties in Ultrathin Silicon Membranes." Shelley A. Scott, W. Peng, Arnold M. Kiefer, Hongquan Jiang, I. Knezevic, D. E. Savage, M. A. Eriksson, and M. G. Lagally, *ACS Nano* **3**, 1683 (2009).
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45. "Predicting the Results of Chemical Vapor Deposition Growth of Suspended Carbon Nanotubes." Matthew S. Marcus, J. M. Simmons, S. E. Baker, Robert J. Hamers, and M. A. Eriksson, *Nano Lett.* **9**, 1806 (2009).
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43. "Spin blockade and lifetime-enhanced transport in a few-electron Si/SiGe double quantum dot." Nakul Shaji, C. B. Simmons, Madhu Thalakulam, L. J. Klein, Hua Qin, H. Luo, D. E. Savage, M. G. Lagally, A. J. Rumberg, Robert Joynt, Mark Friesen, R. Blick, S. N. Coppersmith, and M. A. Eriksson, *Nat. Phys.* **4**, 540 (2008).
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41. "Single-electron quantum dot in Si/SiGe with integrated charge sensing." C. B. Simmons, Madhu Thalakulam, Nakul Shaji, L. J. Klein, Hua Qin, R. Blick, D. E. Savage, M. G. Lagally, S. N. Coppersmith, and M. A. Eriksson, *Appl. Phys. Lett.* **91**, 213103 (2007).
40. "Dielectrophoretic manipulation and real-time electrical detection of single-nanowire bridges in aqueous saline solutions." Matthew S. Marcus, Lu Shang, Bo Li, J. A. Streifer, Joseph D. Beck, E. Perkins, M. A. Eriksson, and Robert J. Hamers, *Small* **3**, 1610 (2007).
39. "Single-crystal silicon/silicon dioxide multilayer heterostructures based on nanomembrane transfer." W. Peng, Michelle M. Roberts, E. P. Nordberg, F. Flack, P. E. Colavita, Robert J. Hamers, D. E. Savage, M. G. Lagally, and M. A. Eriksson, *Appl. Phys. Lett.* **90**, 183107 (2007).
38. "Anisotropic fluorocarbon plasma etching of Si/SiGe heterostructures." R. Ding, L. J. Klein, M. A. Eriksson, and A. E. Wendt, *J. Vac. Sci. Tech. B* **25**, 404 (2007).
37. "Optically modulated conduction in chromophore-functionalized single-wall carbon nanotubes." J. M. Simmons, I. In, V. E. Campbell, T. J. Mark, F. Leonard, P. Gopalan, and M. A. Eriksson, *Phys. Rev. Lett.* **98**, 086802 (2007).
36. "Coulomb blockade and Kondo effect in a few-electron silicon/silicon-germanium quantum dot." L. J. Klein, D. E. Savage, and M. A. Eriksson, *Appl. Phys. Lett.* **90**, 033103 (2007).
35. "Controllable valley splitting in silicon quantum devices." S. Goswami, K. A. Slinker, Mark Friesen, L. M. McGuire, J. L. Truitt, Charles Tahan, L. J. Klein, J. O. Chu, P. M. Mooney, Daniel W. van der Weide, Robert Joynt, S. N. Coppersmith, and M. A. Eriksson, *Nat. Phys.* **3**, 41 (2007).
34. "Magnetic field dependence of valley splitting in realistic Si/SiGe quantum wells." Mark Friesen, M. A. Eriksson, and S. N. Coppersmith, *Appl. Phys. Lett.* **89**, 202106 (2006).
33. "Photogating carbon nanotube transistors." Matthew S. Marcus, J. M. Simmons, O. M. Castellini, Robert J. Hamers, and M. A. Eriksson, *J. Appl. Phys.* **100**, 084306 (2006).
32. "Electrical conductivity in silicon nanomembranes." P. P. Zhang, E. P. Nordberg, Byoung-Nam Park, I. Knezevic, Paul G. Evans, M. A. Eriksson, and M. G. Lagally, *N. Journ. Phys.* **8**, 200 (2006).

31. “Critical oxide thickness for efficient single-walled carbon nanotube growth on silicon using thin SiO₂ diffusion barriers.” J. M. Simmons, B. M. Nichols, Matthew S. Marcus, O. M. Castellini, Robert J. Hamers, and M. A. Eriksson, *Small* **2**, 902 (2006).
30. “Electrically directed assembly and detection of nanowire bridges in aqueous media.” Robert J. Hamers, Joseph D. Beck, M. A. Eriksson, Bo Li, Matthew S. Marcus, Lu Shang, J. M. Simmons, and J. A. Streifer, *Nanotech.* **17**, 280 (2006).
29. “Elastically relaxed free-standing strained-silicon nanomembranes.” Michelle M. Roberts, L. J. Klein, D. E. Savage, K. A. Slinker, Mark Friesen, George Celler, M. A. Eriksson, and M. G. Lagally, *Nat. Mater.* **5**, 388 (2006).
28. “Effect of ozone oxidation on single-walled carbon nanotubes.” J. M. Simmons, B. M. Nichols, S. E. Baker, Matthew S. Marcus, O. M. Castellini, Chang-Soo Lee, Robert J. Hamers, and M. A. Eriksson, *J. Phys. Chem. B* **110**, 7113 (2006).
27. “Microparticle manipulation using inertial forces.” Michael Eglin, M. A. Eriksson, and Robert W. Carpick, *Appl. Phys. Lett.* **88**, 091913 (2006).
26. “Electronic transport in nanometre-scale silicon-on-insulator membranes.” P. P. Zhang, Emma Tevaarwerk, Byoung-Nam Park, D. E. Savage, George Celler, I. Knezevic, Paul G. Evans, M. A. Eriksson, and M. G. Lagally, *Nature* **439**, 703 (2006).
25. “Quantum dots and etch-induced depletion of a silicon two-dimensional electron gas.” L. J. Klein, K. L. M. Lewis, K. A. Slinker, S. Goswami, Daniel W. van der Weide, R. Blick, P. M. Mooney, J. O. Chu, S. N. Coppersmith, Mark Friesen, and M. A. Eriksson, *J. Appl. Phys.* **99**, 023509 (2006).
24. “Electrical characterization of nanowire bridges incorporating biomolecular recognition elements.” Lu Shang, Tami Lasseter Clare, M. A. Eriksson, Matthew S. Marcus, Kevin M. Metz, and Robert J. Hamers, *Nanotech.* **16**, 2846 (2005).
23. “Quantum dots in Si/SiGe 2DEGs with Schottky top-gated leads.” K. A. Slinker, K. L. M. Lewis, C. C. Haselby, S. Goswami, L. J. Klein, J. O. Chu, S. N. Coppersmith, Robert Joynt, R. Blick, Mark Friesen, and M. A. Eriksson, *N. Journ. Phys.* **7**, 246 (2005).
22. “Template-directed carbon nanotube network using self-organized Si nanocrystals.” B. Yang, Matthew S. Marcus, D. G. Keppel, P. P. Zhang, Z. W. Li, B. J. Larson, D. E. Savage, J. M. Simmons, O. M. Castellini, M. A. Eriksson, and M. G. Lagally, *Appl. Phys. Lett.* **86**, 263107 (2005).
21. “Quantitative analysis of electric force microscopy: The role of sample geometry.” Emma Tevaarwerk, D. G. Keppel, P. Rugheimer, M. G. Lagally, and M. A. Eriksson, *Rev. Sci. Instrum.* **76**, 053707 (2005).
20. **Invited:** “Spin-Based Quantum Dot Quantum Computing in Silicon.” M. A. Eriksson, Mark Friesen, S. N. Coppersmith, Robert Joynt, L. J. Klein, K. A. Slinker, Charles Tahan, P. M. Mooney, J. O. Chu, and S. J. Koester, *Quant. Inf. Proc.* **3**, 133 (2004).

19. "Phase imaging and the lever-sample tilt angle in dynamic atomic force microscopy." Matthew J. D'Amato, Matthew S. Marcus, M. A. Eriksson, and Robert W. Carpick, *Appl. Phys. Lett.* **85**, 4738 (2004).
18. "Electrically addressable biomolecular functionalization of carbon nanotube and carbon nanofiber electrodes." Chang-Soo Lee, S. E. Baker, Matthew S. Marcus, Wensha Yang, M. A. Eriksson, and Robert J. Hamers, *Nano Lett.* **4**, 1713 (2004).
17. **Invited:** "Measurements of in-plane material properties with scanning probe microscopy." Robert W. Carpick and M. A. Eriksson, *MRS Bulletin* **29**, 472 (2004).
16. "Coulomb blockade in a silicon/silicon-germanium two-dimensional electron gas quantum dot." L. J. Klein, K. A. Slinker, J. L. Truitt, S. Goswami, K. L. M. Lewis, S. N. Coppersmith, Daniel W. van der Weide, Mark Friesen, R. Blick, D. E. Savage, M. G. Lagally, Charles Tahan, Robert Joynt, M. A. Eriksson, J. O. Chu, J. A. Ott, and P. M. Mooney, *Appl. Phys. Lett.* **84**, 4047 (2004).
15. **Invited:** "Polydiacetylene films: a review of recent investigations into chromogenic transitions and nanomechanical properties." Robert W. Carpick, Darryl Y. Sasaki, Matthew S. Marcus, M. A. Eriksson, and Alan R. Burns, *J. Phys.: Cond. Matt* **16**, 679 (2004).
14. "Valley splitting in strained silicon quantum wells." Timothy B. Boykin, Gerhard Klimeck, M. A. Eriksson, Mark Friesen, S. N. Coppersmith, Paul von Allmen, Fabiano Oyafuso, and Seungwon Lee, *Appl. Phys. Lett.* **84**, 115 (2004).
13. "Spin readout and initialization in a semiconductor quantum dot." Mark Friesen, Charles Tahan, Robert Joynt, and M. A. Eriksson, *Phys. Rev. Lett.* **92**, 037901 (2004).
12. "Thermal decomposition of surfactant coatings on Co and Ni nanocrystals." V. Prez-Dieste, O. M. Castellini, J. N. Crain, M. A. Eriksson, A. Kirakosian, J. -L. Lin, J. L. McChesney, F. J. Himpsel, C. T. Black, and C. B. Murray, *Appl. Phys. Lett.* **83**, 5053 (2003).
11. "Practical design and simulation of silicon-based quantum-dot qubits." Mark Friesen, P. Rugheimer, D. E. Savage, M. G. Lagally, Daniel W. van der Weide, Robert Joynt, and M. A. Eriksson, *Phys. Rev. B* **67**, 121301 (2003).
10. "Pseudo-digital quantum bits." Mark Friesen, Robert Joynt, and M. A. Eriksson, *Appl. Phys. Lett.* **81**, 4619 (2002).
9. "Electrically isolated SiGe quantum dots." Emma Tevaarwerk, P. Rugheimer, O. M. Castellini, D. G. Keppel, S. T. Utley, D. E. Savage, M. G. Lagally, and M. A. Eriksson, *Appl. Phys. Lett.* **80**, 4626 (2002).
8. "Material anisotropy revealed by phase contrast in intermittent contact atomic force microscopy." Matthew S. Marcus, Robert W. Carpick, Darryl Y. Sasaki, and M. A. Eriksson, *Phys. Rev. Lett.* **88**, 226103 (2002).

7. "Comparison of wear characteristics of etched-silicon and carbon nanotube atomic-force microscopy probes." T. Larsen, K. Moloni, F. Flack, M. A. Eriksson, M. G. Lagally, and C. T. Black, *Appl. Phys. Lett.* **80**, 1996 (2002).
6. "Inelastic light scattering by gap excitations of fractional quantum Hall states at $1/3 \leq \nu \leq 2/3$." Moonsoo Kang, A. Pinczuk, B. S. Dennis, M. A. Eriksson, L. N. Pfeiffer, and K. W. West, *Phys. Rev. Lett.* **84**, 546 (2000).
5. "Collective excitations in the dilute 2D electron system." M. A. Eriksson, A. Pinczuk, B. S. Dennis, S. H. Simon, L. N. Pfeiffer, and K. W. West, *Phys. Rev. Lett.* **82**, 2163 (1999).
4. "GaAs/AlGaAs self-sensing cantilevers for low temperature scanning probe microscopy." R. G. Beck, M. A. Eriksson, M. Topinka, R. M. Westervelt, K. D. Maranowski, and A. C. Gossard, *Appl. Phys. Lett.* **73**, 1149 (1998).
3. "Point contact conductance of an open resonator." J. A. Katine, M. A. Eriksson, A. S. Adourian, R. M. Westervelt, J. D. Edwards, A. Lupu-Sax, E. J. Heller, K. L. Campman, and A. C. Gossard, *Phys. Rev. Lett.* **79**, 4806 (1997).
2. "Cryogenic scanning probe characterization of semiconductor nanostructures." M. A. Eriksson, R. G. Beck, M. Topinka, J. A. Katine, R. M. Westervelt, K. L. Campman, and A. C. Gossard, *Appl. Phys. Lett.* **69**, 671 (1996).
1. "Strain-sensing cryogenic field-effect transistor for integrated strain detection in GaAs/AlGaAs microelectromechanical systems." R. G. Beck, M. A. Eriksson, R. M. Westervelt, K. L. Campman, and A. C. Gossard, *Appl. Phys. Lett.* **68**, 3763 (1996).

Invited Presentations

Conferences and Workshops

68. American Association for the Advancement of Science, *to be given*, Washington, D.C., 15-18 February, 2019.
67. Workshop on Innovative Nanoscale Devices and Systems, *to be given*, Hawaii, 25-30 November, 2018.
66. 4th School and Conference on Spin-Based Quantum Information Processing, *to be given*, Konstanz, Germany, 10-14 September, 2018.
65. 19th International Symposium on the Physics of Semiconductors and Applications, *to be given*, Jeju, South Korea, 4 July, 2018.
64. CMOS Emerging Materials, Whistler, British Columbia, Canada, 9 May, 2018.
63. Low Dimensional Quantum Materials, Snowbird, Utah, 10 March, 2018.
62. Spin Qubits 3, Sydney, Australia, 8 November, 2017.
61. International Workshop on Recent Experimental Progress in Semiconductor Qubits, Hefei, China, 15 September, 2017.
60. CINT User Workshop, Sante Fe, NM, 19 September, 2016.
59. Plenary Talk, CNF Annual Meeting, Cornell University, 15 September, 2016.
58. MRS Spring Meeting Symposium: Tuning Properties by Elastic Strain Engineering (ESE) — from Modeling to Making and Measuring, 1 April, 2016, Phoenix, Arizona.
57. 19th International Winterschool on New Developments in Solid State Physics, 25 February, 2016, Mauterndorf, Austria.
56. Silicon Quantum Information Processing 2015, Murray Edwards College, Cambridge, UK, 11 September, 2015.
55. Beyond Exascale Workshop, Oak Ridge National Laboratory, 20 August, 2015.
54. EP2DS-21, Sendai, Japan, 28 July, 2015.
53. 226th Meeting of the Electrochemical Society, Cancun, Mexico, 9 October, 2014.
52. Workshop on Quantum Technologies, Los Alamos, NM, 7 October, 2014.
51. Spin-Based Quantum Information Processing, Konstanz, Germany, 18 August, 2014.
50. Gordon Research Conference on Nanofabrication, 14 July, 2014.
49. Quantum Computing with Electron Spin Qubits, KITPC, Beijing, China, 9 July, 2014.

48. 1st International Workshop on Frontiers in Quantum Optics and Quantum Information: Quantum Computing with Electron Spin Qubits, 3 July, 2014.
47. APS March Meeting, 5 March, 2014.
46. CMOS Emerging Technologies, Whistler, BC, Canada, 17 July, 2013.
45. ICSI-8, Fukuoka, Japan, 3 June, 2013.
44. Keynote Talk, Wisconsin Association of Physics Teachers, University of Wisconsin-Platteville, 26 October, 2012.
43. 31st International Conference on the Physics of Semiconductors (ICPS-31), Zurich, Switzerland, 2 August, 2012.
42. Plenary Talk, International SiGe Technology and Device Meeting (ISTDM), Berkeley, 4 June, 2012.
41. 15th International Workshop on Computational Electronics, University of Wisconsin-Madison, 22 May, 2012.
40. 1st International Conference on Adiabatic Quantum Computing, Albuquerque, NM, 7 March, 2012.
39. NASA Quantum Technologies Conference, NASA Ames, CA, 17 January, 2012.
38. Quantum Control of Solid State Systems, Princeton University, 3-5 November, 2011.
37. CMOS Emerging Technologies, Whistler, BC, Canada, 15-17 June, 2011.
36. Ohio Section Meeting of the APS, Marietta College, October 8, 2010.
35. International Conference on Quantum Communication, Measurement and Computation (QCMC), Brisbane, Australia, 19-23 July, 2010.
34. International Symposium on Quantum Nanostructures and Spin-related Phenomena (QNSP), Tokyo, Japan, 9-11 March, 2010.
33. INTRIQ Workshop, Montreal, Canada, October 2, 2009.
32. Quantum Frontiers Symposium, University of Queensland, Brisbane, Australia, 3 April, 2009.
31. Annual Meeting, Centre for Quantum Computer Technology, Sydney, Australia, 9 February, 2009.
30. MRS Fall Meeting, Symposium MM, Applications of Group IV Semiconductor Nanostructures, Boston, Massachusetts, December, 2008.
29. IEEE Nanotechnology Materials and Devices Conference (NMDC), Kyoto, Japan, 20-22 October, 2008.

28. Solid State Devices & Materials Conference (SSDM), Tsukuba, Japan, September, 2008.
27. International Conference on the Physics of Semiconductors (ICPS-29), Rio de Janeiro, Brazil, July 27 – Aug 1, 2008.
26. UK Semiconductors, Sheffield, United Kingdom, 2 July, 2008
25. IEEE Silicon Nanoelectronics Workshop, Honolulu, Hawaii, 15 June, 2008
24. Silicon Focus Group, Sydney, Australia, 21 February, 2008.
23. Annual Meeting, Centre for Quantum Computer Technology, Melbourne, Australia, 18 February, 2008.
22. 38th Winter Colloquium on The Physics of Quantum Electronics, Snowbird, UT, January 6-10, 2008
21. ISANN, Kailua Kona, HI, November 30, 2007.
20. Workshop: Nanoelectronics, CNM, Argonne National Lab, May 10, 2007.
19. March Meeting of the APS, March 6, 2007.
18. ICONN2006, July 3-July 7, 2006.
17. ISTDM'06 - May 15-17, 2006.
16. ESR Workshop, Villa Nobel, Italy, March 6-8, 2006.
15. American Vacuum Society (AVS), Nov. 3, 2005.
14. Midwest Solid State Conference, University of Missouri-Columbia, Oct. 8, 2005.
13. March Meeting of APS, March 2005.
12. Fields Institute, Toronto, Canada, Quantum Information and Quantum Control Conference, July, 2004.
11. 2004 IEEE NTC Quantum Device Technology Workshop, May 17-24, 2004.
10. DARPA Workshop, Scalable Quantum Information Processing via Error Control, May 6-7, 2004.
9. Solid State Quantum Information Processing Conference, Amsterdam, The Netherlands, December 18, 2003.
8. Midwest Microscopy and Microanalysis Society, October 3, 2003.
7. AAPT National Meeting, August 6, 2003.
6. Workshop on Group-IV Quantum Computing, March 29, 2003.

5. APS March Meeting, March 2003.
4. DOE Workshop, January 18, 2003.
3. Workshop on Solid State Quantum Computation (SSQC), IBM Watson Research Center, Yorktown Heights, NY, 2002.
2. APS Centennial Meeting, March, 1999.
1. APS March Meeting, March, 1997.

Colloquia and Seminars

83. Seminar, Western Digital Corporation, San Jose, CA, 11 May, 2018.
82. Seminar, Simon Fraser University, 10 May, 2018.
81. Colloquium, Department of Physics, Georgia Tech, 9 April, 2018.
80. Seminar, CMTC group, University of Maryland, 5 December, 2017.
79. Colloquium, Pittsburgh Quantum Institute, Carnegie Mellon University and University of Pittsburgh, 3 April, 2017.
78. Seminar, Department of Physics, Michigan State University, 20 March, 2017.
77. Colloquium, Department of Physics, Lawrence University, 3 November, 2016.
76. Seminar, Spin Qubits Group, TU Delft, 24 May, 2016.
75. Seminar, Department of Physics, University College London, 25 April, 2016.
74. Colloquium, Department of Physics, Lancaster University, 20 April, 2016.
73. Zurich Physics Colloquium, ETH and University of Zurich, 9 March, 2016.
72. Seminar, Regensburg University, 26 January, 2016.
71. MESA+ Advanced Materials Seminar, University of Twente, 15 December, 2015.
70. Colloquium on Solid State Physics, Faculty of Physics, TUM Garching, 10 December, 2015.
69. Quantum Nanoscience Seminar, TU Delft, The Netherlands, 18 November, 2015.
68. Seminar, Institute for Quantum Information, RWTH University Aachen, 22 October, 2015.
67. Presentation at “Soundwaves,” Wisconsin Institutes of Discovery, 8 May, 2015.
66. Seminar, Purdue University, 14 November, 2014.
65. Seminar, IBM Zurich, Rschlikon, Switzerland, 21 August, 2014.
64. Seminar, TU Delft, The Netherlands, 18 December, 2013.

63. Colloquium, University of Missouri, 4 October, 2013.
62. Colloquium, Rice University, 2 October, 2013.
61. Seminar, Keio University, Yokohama, Japan, 4 June, 2013.
60. Illinois State University, Colloquium, Normal, IL, April 2, 2013.
59. University of Wisconsin-LaCrosse, Colloquium, February 20, 2013.
58. Institute for Quantum Computing, Waterloo, ON, Canada, Seminar, May 28, 2012.
57. International Institute for Nanotechnology, Northwestern University, Seminar, May 10, 2012.
56. University of Wisconsin-Stevens Point, Colloquium, November 18, 2011.
55. NRC, Ottawa, Canada, Seminar, March 18, 2011.
54. McGill University, Colloquium, March 14, 2011.
53. University of Maryland, Center for Nanophysics and Advanced Materials Colloquium, Feb. 17, 2011.
52. University of Utah, Colloquium, November 11, 2010.
51. University of New Mexico, Center for Quantum Information and Control, Seminar, May 13, 2010.
50. University of Maryland, Joint Quantum Institute, Seminar, March 29, 2010.
49. School of Physics, Australian National University, Seminar, May 19, 2009.
48. School of Physics, University of Melbourne, Colloquium, March 31, 2009.
47. Department of Physics, University of Queensland, Colloquium, March 20, 2009.
46. Harvard University, Seminar, Dec. 2, 2008.
45. Sydney University, Seminar, Oct. 29, 2008.
44. University of New South Wales, Colloquium, Oct. 7, 2008.
43. Swarthmore College, Colloquium, Nov. 16, 2007.
42. University of Wisconsin-Madison, Colloquium, Nov. 14, 2007.
41. University of Illinois, Urbana-Champaign, Seminar, Oct. 26, 2007.
40. ZMD Corporation, Middleton, Wisconsin, Aug. 8, 2007.
39. Ohio State University, Seminar, January 25, 2007.
38. Colloquium, SUNY-Buffalo, Department of Physics, Oct. 26, 2006.

37. Colloquium, Sandia National Labs, Oct. 4, 2006.
36. Seminar, Purdue University, Sept. 22, 2006.
35. Colloquium, University of Iowa, Department of Physics, Feb. 27, 2006.
34. UW Materials Science Seminar, Feb. 16, 2006
33. UCLA Condensed Matter Seminar, January 25, 2006.
32. Colloquium, HRL, January 24, 2006.
31. Delft University, The Netherlands, Seminar, Nov. 9, 2005.
30. Dartmouth University, Colloquium, Spring 2005.
29. Ohio State University, Seminar, Spring 2005.
28. Princeton University, Seminar, Feb. 28, 2005.
27. Sandia National Lab (CA), Seminar, Feb. 15, 2005.
26. Michigan State University, Seminar, Oct. 20, 2004.
25. Boston College, Department of Physics Colloquium, Sept. 15, 2004.
24. GE Corporate Research Center, Schenectady, NY, April 11, 2003.
23. IBM Thomas J. Watson Research Center, April 8, 2003.
22. Rice University, Physics Department Seminar, March 10, 2003.
21. Seminar, University of Wisconsin-Madison, Physics Department, 2001.
20. Colloquium, University of Wisconsin-Madison, Physics Department, 1999.
19. Seminar, University of Wisconsin-Madison, Materials Science and Engineering, 1999.
18. Seminar, Rice University, Electrical and Computer Engineering Department, 1999.
17. Seminar, California Institute of Technology, Applied Physics Department, 1999.
16. Seminar, Ohio State University, Physics Department, 1999.
15. Seminar, McGill University, Physics Department, 1999.
14. Seminar, Boston College, Physics Department, 1999.
13. Seminar, IBM Watson, 1999.
12. Seminar, Wake Forest University, Physics Department, 1999.
11. Seminar, University of Wisconsin-Madison, Materials Science Department, 1999.

10. Seminar, University of Pennsylvania, Physics Department, 1999.
9. Colloquium, Colgate University, Physics Department, 1999.
8. Colloquium, Lewis and Clark College, Physics Department, 1999.
7. Seminar, Bell Labs, 1998.
6. Seminar, Columbia University, Physics Department, 1998.
5. Seminar, SUNY Buffalo, Physics Department, 1998.
4. Seminar, Bell Labs, 1998.
3. Seminar, Yale University, Physics Department, 1998.
2. Seminar, Dartmouth University, Physics Department, 1997.
1. Seminar, University of Wisconsin-Madison, Physics Department, 1997.