

Curriculum Vitae

Ilya Krivorotov

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Education

1998 – 2002 Ph. D. in Physics, University of Minnesota, USA
1996 – 1998 Physics graduate student, Emory University, USA
1988 – 1994 B.S., M.S. in Physics, Tomsk State University, Russia

Honors

2020 Fellow of the American Physical Society
2020 IEEE Senior Membership
2008 NSF Early Career Development (CAREER) Award
2002 Aneesur Rahman Award, University of Minnesota
2001 University of Minnesota Doctoral Dissertation Fellowship
1999 Outstanding Teaching Assistant Award, University of Minnesota
1994 Diploma *Cum laude*, Tomsk State University

Employment

2015 – present Professor, University of California at Irvine
2011 – 2015 Associate Professor, University of California at Irvine
2005 – 2011 Assistant Professor, University of California at Irvine
2002 – 2005 Postdoctoral Research Associate, Cornell University
1998 – 2002 Teaching/Research Assistant, University of Minnesota
1996 – 1998 Teaching/Research Assistant, Emory University
1994 – 1996 Teaching/Research Assistant, Tomsk State University
1993 – 1994 Research Assistant, A.F.Ioffe Institute of Physics and Technology

Memberships in Professional Societies

American Physical Society (APS)
American Association for the Advancement of Science (AAAS)
The Institute of Electrical and Electronics Engineers (IEEE)

Research interests

Spin dynamics in magnetic nanostructures
Spin torques
Spin orbitronics
Spin caloritronics

Quantum spintronics
Magneto-electric effects
Proximity effects in ferromagnetic/superconducting heterostructures
Nonvolatile magnetic memory and logic

Selected Synergistic Activities

2012 – present	Participant of Laboratory Experiments and Activities in the Physical Sciences (LEAPS) middle school outreach program
2019 – 2021	Chair of 7 th International Conference on Magnonics
2019 – 2020	Program Committee of the INTERMAG 2020 conference
2013 – 2019	IEEE Magnetics Society Publications Committee
2013 – 2018	Executive Committee of the Center for Nanoferroic Devices
2013 – 2018	Executive Committee of the Center for Function Accelerated Nanomaterials Engineering
2015 – 2018	Executive Committee of the Topical Group on Magnetism and its Applications (GMAG) of the American Physical Society
2011 – 2019	Editorial Review Board of the IEEE Magnetics Letters
2011 – 2013	Co-chair of the Program Committee of the 12th Joint INTERMAG /MMM Conference
2009 – 2010	Program Committee of the 55th Conference on Magnetism and Magnetic Materials
2007 – 2014	Technical Committee of the IEEE Magnetics Society
2007 – 2013	Co-director of the Chemical and Materials Physics Program at UC Irvine

Papers and Book Chapters (h-index 50, 10,600+ citations, Google Scholar)

- 149.** Jen-Ru Chen, Pok-Lam Tse, Ilya N. Krivorotov, and Jia G Lu, “*Spin-momentum locking induced non-local voltage in topological insulator nanowire*”, arXiv:2009.09091 (2020).
- 148.** Bassim Arkook, Rodolfo Rodriguez, Christopher Safranski, Ilya N. Krivorotov, Tobias Schneider, Kilian Lenz, Juergen Lindner, Mingzhong Wu, and Igor Barsukov, “*Thermally driven two-magnet nano-oscillator with large spin-charge conversion*”, arXiv:1909.12445 (2019).
- 147.** T. Schneider, D. Hill, A. Kakay, K. Lenz, J. Lindner, J. Fassbender, P. Upadhyaya, Yuxiang Liu, Kang Wang, Y. Tserkovnyak, I. N. Krivorotov, and I. Barsukov, “*Self-stabilizing spin superfluid*”, arXiv:1811.09369 (2018).
- 146.** Jen-Ru Chen, Andrew Smith, Eric A. Montoya, Jia G. Lu, Ilya N. Krivorotov, “*Spin-orbit torque nano-oscillator with giant magnetoresistance readout*”, Comm. Phys., accepted (2020).
- 145.** Andrew Smith, Kemal Sobotkiewich, Amanatullah Khan, Eric A. Montoya, Liu Yang, Zheng Duan, Tobias Schneider, Kilian Lenz, Juergen Lindner, Kyongmo An, Xiaoqin Li, Ilya N. Krivorotov, “*Dimensional crossover in spin Hall oscillators*”, Phys. Rev. B **102**, 054422 (2020).

- 144.** Eric Arturo Montoya, Jen-Ru Chen, Randy Ngelale, Han Kyu Lee, Hsin-Wei Tseng, Lei Wan, En Yang, Patrick Braganca, Ozdal Boyraz, Nader Bagherzadeh, Mikael Nilsson, Ilya N. Krivorotov, “*Immunity of nanoscale magnetic tunnel junctions to ionizing radiation*”, Scientific Reports **10**, 10220 (2020).
- 143.** Parinaz Sadri-Moshkenani, Mohammad Wahiduzzaman Khan, Md. Shafiqul Islam, Eric Montoya, Ilya Krivorotov, Nader Bagherzadeh, Ozdal Boyraz, “*Effect of magnesium oxide adhesion layer on resonance behavior of plasmonic nanostructures*”, Appl. Phys. Lett. **116**, 241601 (2020).
- 142.** Y. Liu, I. Barsukov, I. N. Krivorotov, Y. Barlas, R. K. Lake, “*Synthetic antiferromagnet-based spin Josephson oscillator*”, Appl. Phys. Lett. **116**, 132409 (2020).
- 141.** Alejandro A. Jara, Evan Moen, Oriol T. Valls, Ilya N. Krivorotov, “*Bias current dependence of superconducting transition temperature in superconducting spin valve nanowires*”, Phys. Rev. B **100**, 184512 (2019).
- 140.** J.M. Algarin, B. Ramaswamy, Y.J. Chen, I.N. Weinberg, I. N. Krivorotov, J.A. Katine, B. Shapiro, E. Waks, “*High rectification sensitivity of radiofrequency signal through adiabatic stochastic resonance in nanoscale magnetic tunnel junctions*”, Appl. Phys. Lett. **115**, 192402 (2019).
- 139.** I. Barsukov, H. K. Lee, A. A. Jara, Y.-J. Chen, A. M. Goncalves, C. Sha, J. A. Katine, R. E. Arias, B. A. Ivanov, and I. N. Krivorotov, “*Giant nonlinear damping in nanoscale ferromagnets*”, Science Advances **5**, eaav6943 (2019).
- 138.** Parinaz Sadri-Moshkenania, Mohammad Wahiduzzaman Khan, Qiancheng Zhao, Ilya Krivorotov, Mikael Nilsson, Nader Bagherzadeh, Ozdal Boyraz, “*Array of Symmetric Nanohole Dimers with High Sensitivity for Detection of Changes in STT-RAM Ultrathin Dielectric Layer*”, J. Opt. Soc. Amer. B **36**, 3090 (2019).
- 137.** Parinaz Sadri-Moshkenani, Mohammad Wahiduzzaman Khan, Mustafa Mert Bayer, Md Shafiqul Islam, Eric Montoya, Ilya Krivortov, Mikael Nilsson, Nader Bagherzadeh, Ozdal Boyraz, “*Effect of Tantalum and MgO adhesion layers on plasmonic nanostructures*”, Proceedings of SPIE **11089**, 1108916 (2019).
- 136.** Eric A. Montoya, Salvatore Perna, Yu-Jin Chen, Jordan A. Katine, Massimiliano d'Aquino, Claudio Serpico, Ilya N. Krivorotov, “*A new path to magnetization switching – ac spin transfer torque driven by low dimensional chaos*”, Digest of the 30th Magnetic Recording Conference, **F5**, 86 (2019).
- 135.** Alexander Khitun and Ilya Krivorotov, “*Spin Wave Logic Devices*”, book chapter in “*Spintronics Handbook: Spin Transport and Magnetism, Second Edition Nanoscale Spintronics and Applications – Volume Three*”, Taylor & Francis, ISBN: 9781498769716 (2019).

- 134.** Roman Verba, Mario Carpentieri, Yu-Jin Chen, Ilya N. Krivorotov, Giovanni Finocchio, Vasil Tiberkevich, and Andrei Slavin, “*Correction of phase errors in a spin-wave transmission line by nonadiabatic parametric pumping*”, Phys. Rev. Appl. **11**, 054040 (2019).
- 133.** Aryan Navabi, Yuxiang Liu, Pramey Upadhyaya, Koichi Murata, Farbod Ebrahimi, Guoqiang Yu, Bo Ma, Yiheng Rao, Mohsen Yazdani, Mohammad Montazeri, Lei Pan, Ilya N. Krivorotov, Igor Barsukov, Qinghui Yang, Pedram Khalili Amiri, Yaroslav Tserkovnyak, and Kang L. Wang, “*Control of spin-wave damping in YIG using spin currents from topological insulators*”, Phys. Rev. Appl. **11**, 034046 (2019).
- 132.** J. M. Algarin, B. Ramaswamy, L. Venuti, M. E. Swierzbinski, J. Baker-McKee, I. N. Weinberg, Y.J. Chen, I. N. Krivorotov, J. A. Katine, J. Herberholz, R. Araneda, B. Shapiro, and E. Waks, “*Activation of Microwave Signals in Nanoscale Magnetic Tunnel Junctions by Neuronal Action Potentials*”, IEEE Magn. Lett. **10**, 3101405 (2019).
- 131.** Eric A. Montoya, Salvatore Perna, Yu-Jin Chen, Jordan A. Katine, Massimiliano d'Aquino, Claudio Serpico, Ilya N. Krivorotov, “*Magnetization reversal driven by low dimensional chaos in a nanoscale ferromagnet*”, Nature Commun. **10**, 543 (2019).
- 130.** J. M. Algarin, B. Ramaswamy, I. N. Weinberg, Y. J. Chen, I. N. Krivorotov, J.A. Katine, B. Shapiro, and E. Waks, “*Frequency conversion of microwave signal without direct bias current using nanoscale magnetic tunnel junctions*”, Scientific Reports **9**, 828 (2019).
- 129.** Bin Fang, Mario Carpentieri, Steven Louis, Vasyl Tiberkevich, Andrei Slavin, Ilya N. Krivorotov, Riccardo Tomasello, Anna Giordano, Hongwen Jiang, Jialin Cai, Yaming Fan, Zehong Zhang, Baoshun Zhang, Jordan A. Katine, Kang L. Wang, Pedram Khalili Amiri, Giovanni Finocchio, and Zhongming Zeng, “*Experimental Demonstration of Spintronic Broadband Microwave Detectors and Their Capability for Powering Nanodevices*”, Phys. Rev. Appl. **11**, 014022 (2019).
- 128.** Christopher Safranski, Eric A. Montoya, Ilya N. Krivorotov, “*Spin-orbit torque driven by a planar Hall current*”, Nature Nanotech. **14**, 27 (2019).
- 127.** K. Wagner, A. Smith, T. Hache, J. Chen, L. Yang, E. Montoya, K. Schultheiss, J. Lindner, J. Fassbender, I. Krivorotov, and H. Schultheiss, “*Injection locking of multiple auto-oscillation modes in a tapered nanowire spin Hall oscillator*”, Scientific Reports **8**, 16040 (2018).
- 126.** Irving N. Weinberg, Lamar O. Mair, Sahar Jafari, Jose Algarin, Jose Maria Benlloch Baviera, James Baker-McKee, Bradley English, Sagar Chowdhury, Pulkit Malik, Danica Sun, Jamelle Watson-Daniels, Olivia Hale, Pavel Y. Stepanov, Aleksandar Nacev, Ryan Hilaman, Said Ijanaten, Christian Koudelka, Ricardo Araneda, Jens Herberholz, Luz J. Martinez-Miranda, Benjamin Shapiro, Pablo S. Villar, Ilya Krivorotov, Sakhrat Khizroev and Stanley Fricke, “*Image-guided Placement of Magnetic Neutroparticles as a Potential High-Resolution Brain-Machine Interface*”, book chapter in “*Evolving BCI Therapy - Engaging Brain State Dynamics*”, ISBN: 978-1-78984-070-4, <http://dx.doi.org/10.5772/intechopen.75522> (2018).

- 125.** Steven Louis, Olga Sulymenko, Vasyl Tyberkevych, Jia Li, Daniel Aloï, Oleksandr Prokopenko, Ilya Krivorotov, Elena Bankowski, Thomas Meitzler, and Andrei Slavin, “*Ultra-fast wide band spectrum analyzer based on a rapidly tuned spin-torque nanooscillator*”, *Appl. Phys. Lett.* **113**, 112401 (2018).
- 124.** Roman Verba, Ivan Lisenkov, Ilya Krivorotov, Vasil Tiberkevich, and Andrei Slavin, “*Nonreciprocal Surface Acoustic Waves in Multilayers with Magnetoelastic and Interfacial Dzyaloshinskii-Moriya Interactions*”, *Phys. Rev. Appl.* **9**, 064014 (2018).
- 123.** A. M. Goncalves, F. Garcia, H. K. Lee, A. Smith, P. R. Soledade, C. A. C. Passos, M. Costa, N. M. Souza-Neto, I. Krivorotov, L. C. Sampaio, and I. Barsukov, “*Oscillatory interlayer coupling in spin Hall systems*”, *Scientific Reports* **8**, 2318 (2018).
- 122.** M. Evelt, C. Safranski, Mohammed Aldosary, V. E. Demidov, I. Barsukov, A. P. Nosov, A. B. Rinkevich, K. Sobotkiewich, Xiaoqin Li, Jing Shi, I. N. Krivorotov, S. O. Demokritov, “*Spin Hall-induced auto-oscillations in ultrathin YIG grown on Pt*”, *Scientific Reports* **8**, 1269 (2018).
- 121.** Jose Miguel Algarin, Bharath Ramaswamy, Lucy Venuti, Matthew Swierzbinski, Pablo Villar, Yu-Jin Chen, Ilya Krivorotov, Irving N. Weinberg, Jens Herberholz, Ricardo Araneda, Benjamin Shapiro, and Edo Waks, “*Modulation and detection of single neuron activity using Spin Transfer NanoOscillators*”, *Proceedings of SPIE*, **10357**, 1035727 (2017).
- 120.** Steven Louis, Vasyl Tyberkevych, Jia Li, Ivan Lisenkov, Roman Khymyn, Elena Bankowski, Thomas Meitzler, Ilya Krivorotov, Andrei Slavin, “*Low Power Microwave Signal Detection With a Spin-Torque Nano-Oscillator in the Active Self-Oscillating Regime*”, *IEEE Trans. Magn.* **53**, 1400804 (2017).
- 119.** Parinaz Sadri-Moshkenania, Mohammad Wahiduzzaman Khan, Qiancheng Zhao, Ilya Krivorotov, Mikael Nilsson, Nader Bagherzadeh, Ozdal Boyraz, “*Plasmonic detection of possible defects in multilayer nanohole array consisting of essential materials in simplified STT-RAM cell*”, *Proceedings of SPIE*, **10346**, 1034639 (2017).
- 118.** C. Safranski, I. Barsukov, H. K. Lee, T. Schneider, A. Jara, A. Smith, H. Chang, K. Lenz, J. Lindner, Y. Tserkovnyak, M. Wu, and I. N. Krivorotov, “*Spin caloritronic nano-oscillator*”, *Nature Commun.* **8**, 117 (2017).
- 117.** Frances Hellman, Axel Hoffmann, Yaroslav Tserkovnyak, Geoffrey Beach, Eric Fullerton, Chris Leighton, Allan MacDonald, Dan Ralph, Dario Arena, Hermann Durr, Peter Fischer, Julie Grollier, Joseph Heremans, Tomas Jungwirth, Alexey Kimmel, Bert Koopmans, Ilya Krivorotov, Steven May, Amanda Petford-Long, James Rondinelli, Nitin Samarth, Ivan Schuller, Andrei Slavin, Mark Stiles, Oleg Tchernyshyov, Andre Thiaville, and Barry Zink, “*Interface-Induced Phenomena in Magnetism*”, *Rev. Mod. Phys.* **89**, 025006 (2017).
- 116.** Yunpeng Chen, Halise Celik, Tao Wang, Harsha Kannan, Ilya N. Krivorotov, and John Q. Xiao, “*Quantifying angular dependence of spin-orbit torques in Ta/CoFeB/MgO trilayers with perpendicular magnetic anisotropy*”, *Phys. Rev. B* **95**, 144405 (2017).

- 115.** Yu-Jin Chen, Han Kyu Lee, Roman Verba, Jordan A. Katine, Igor Barsukov, Vasil Tiberkevich, John Q. Xiao, Andrei N. Slavin, and Ilya N. Krivorotov, “*Parametric resonance of magnetization excited by electric field*”, Nano Lett. **17**, 572 (2017).
- 114.** C. J. Safranski, Y.-J. Chen, I. N. Krivorotov, J. Z. Sun, “*Material parameters of perpendicularly magnetized tunnel junctions from spin torque ferromagnetic resonance techniques*”, Appl. Phys. Lett. **109**, 132408 (2016).
- 113.** A. A. Jara, I. Barsukov, B. Youngblood, Yu-Jin Chen, J. Read, Hua Chen, P. Braganca, and I. N. Krivorotov, “*Highly textured IrMn₃(111) thin films grown by magnetron sputtering*”, IEEE Magn. Lett. **7**, 3104805 (2016).
- 112.** B. Ramaswamy, J. M. Algarin, I. N. Weinberg, Y.-J. Chen, I. N. Krivorotov, J. A. Katine, B. Shapiro, E. Waks, “*Wireless current detection by near field induction from a spin transfer torque nano-oscillator*”, Appl. Phys. Lett. **108**, 242403 (2016).
- 111.** H. K. Lee, I. Barsukov, A. G. Swartz, B. Kim, L. Yang, H. Y. Hwang, and I. N. Krivorotov, “*Magnetic anisotropy, damping and interfacial spin transport in Pt/LSMO/STO(001) thin films*”, AIP Advances **6**, 055212 (2016).
- 110.** Bin Fang, Mario Carpentieri, Xiaojie Hao, Hongwen Jiang, Jordan A. Katine, Ilya N. Krivorotov, Berthold Ocker, Juergen Langer, Kang L. Wang, Baoshun Zhang, Bruno Azzzerboni, Pedram Khalili Amiri, Giovanni Finocchio and Zhongming Zeng, “*Giant spin-torque diode sensitivity in the absence of bias magnetic field*”, Nature Commun. **7**, 11259 (2016).
- 109.** Yu Fu, I. Barsukov, Jing Li, A. M. Goncalves, C. C. Kuo, M. Farle, and I. N. Krivorotov, “*Temperature dependence of perpendicular magnetic anisotropy in CoFeB thin films*”, Appl. Phys. Lett. **108**, 142403 (2016).
- 108.** Hua Wen, Hanan Dery, Walid Amamou, Tiancong Zhu, Zhisheng Lin, Jing Shi, Igor Žutić, Ilya Krivorotov, L. J. Sham, and Roland K. Kawakami, “*Experimental demonstration of XOR operation in graphene magnetologic gates at room temperature*”, Phys. Rev. Appl. **5**, 044003 (2016).
- 107.** Qiancheng Zhao, Mohsen Rajaei, Ilya Krivorotov, Mikael Nilsson, Nader Bagherzadeh and Ozdal Boyraz, “*Optical Investigation of Radiation Induced Conductivity Changes in STT-RAM Cells*”, Lasers and Electro-Optics (CLEO), FM3B.2 (2016)
- 106.** Liu Yang, Roman Verba, Vasil Tiberkevich, Tobias Schneider, Andrew Smith, Zheng Duan, Brian Youngblood, Kilian Lenz, Juergen Lindner, Andrei N. Slavin, and Ilya N. Krivorotov, “*Reduction of phase noise in nanowire spin orbit torque oscillators*”, Scientific Reports **5**, 16942, (2015).

- 105.** Zheng Duan, Ilya N. Krivorotov, Rodrigo E. Arias, Nathalie Reckers, Michael Farle, Sven Stienen and Juergen Lindner, “*Spin wave eigenmodes in transversely magnetized thin film ferromagnetic wires*”, Phys. Rev. B **92**, 104424 (2015).
- 104.** I. Barsukov, Yu Fu, C. Safranski, Y.-J. Chen, B. Youngblood, A. M. Gonçalves, M. Spasova, M. Farle, J. A. Katine, C. C. Kuo, and I. N. Krivorotov, “*Magnetic phase transitions in Ta/CoFeB/MgO multilayers*”, Appl. Phys. Lett. **106**, 192407 (2015).
- 103.** Kos Galatsis, Charles Ahn, Ilya Krivorotov, Philip Kim, Roger Lake, Kang L. Wang, and Jane P. Chang, “*A Material Framework for Beyond-CMOS Devices*”, IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, **1**, 19 (2015).
- 102.** Zheng Duan, Andrew Smith, Liu Yang, Brian Youngblood, J. Lindner, V. E. Demidov, S. O. Demokritov and Ilya N. Krivorotov, “*Nanowire Spin Torque Oscillator Driven by Spin Orbit Torques*”, Nature Commun. **5**, 5616 (2014).
- 101.** I. Barsukov, Yu Fu, A. M. Goncalves, M. Spasova, M. Farle, L. C. Sampaio, R. E. Arias, I. N. Krivorotov, “*Field-dependent perpendicular magnetic anisotropy in CoFeB thin films*”, Appl. Phys. Lett. **105**, 152403 (2014).
- 100.** Zheng Duan, Carl T. Boone, Xiao Cheng, Ilya N. Krivorotov, Nathalie Reckers, Sven Stienen, Juergen Lindner, “*Spin-wave modes in permalloy/platinum wires and tuning of the mode damping by spin Hall current*”, Phys. Rev. B **90**, 024427 (2014).
- 99.** Roman Verba, Vasil Tiberkevich, Ilya Krivorotov, and Andrei Slavin, “*Parametric excitation of spin waves in ultrathin ferromagnetic stripes by an electric field using the effect of voltage-controlled magnetic anisotropy*”, Phys. Rev. Appl. **1**, 044006 (2014).
- 98.** Alejandro A. Jara, Christopher Safranski, Ilya N. Krivorotov, Chien-Te Wu, Abdul N. Malmi-Kakkada, Oriol T. Valls, and Klaus Halterman, “*Angular dependence of superconductivity in superconductor / spin valve heterostructures*”, Phys. Rev. B **89**, 184502 (2014).
- 97.** Juan G. Alzate, Pedram Khalili Amiri, Guoqiang Yu, Pramey Upadhyaya, Jordan A. Katine, Juergen Langer, Berthold Ocker, Ilya N. Krivorotov and Kang L. Wang, “*Temperature Dependence of the Voltage-Controlled Perpendicular Anisotropy in Nanoscale MgO/CoFeB/Ta Magnetic Tunnel Junctions*”, Appl. Phys. Lett. **104**, 112410 (2014).
- 96.** O. V. Prokopenko, I. N. Krivorotov, E. N. Bankowski, T. J. Meitzler, V. S. Tiberkevich, A. N. Slavin, “*Hysteresis regime in the operation of a dual-free-layer spin-torque nano-oscillator with out-of-plane counter-precessing magnetic moments*”, J. Appl. Phys. **114**, 173904 (2013).
- 95.** G. Consolo, L. Lopez-Diaz, B. Azzerboni, I. Krivorotov, V. Tiberkevich, A. Slavin, “*Excitation of spin waves by a current-driven magnetic nanocontact in a perpendicularly magnetized waveguide*”, Phys. Rev. B **88**, 014417 (2013).

- 94.** V. Kochergin, S. Cherepov, R. N. Schwartz, K. Flanagan, I. N. Krivorotov, E. V. Kochergin, K. L. Wang, “*Ultrafast all-optical magnetization reversal in GdFeCo films around plasmonic nanostructures*”, Proceedings of SPIE, **8809**, 88090U (2013).
- 93.** Oleksandr V. Prokopenko, Ilya N. Krivorotov, Thomas J. Meitzler, Elena Bankowski, Vasil S. Tiberkevich, and Andrei N. Slavin, “*Spin-Torque Microwave Detectors*”, in “Magnonics: From Fundamentals to Applications”, Topics in Applied Physics **125**, 144, Springer (2013).
- 92.** A. M. Gonçalves, I. Barsukov, Y.-J. Chen, L. Yang, J. A. Katine, I. N. Krivorotov, “*Spin torque ferromagnetic resonance with magnetic field modulation*”, Appl. Phys. Lett. **103**, 172406 (2013).
- 91.** X. Cheng, J. A. Katine, G. Rowlands, I. N. Krivorotov, “*Nonlinear ferromagnetic resonance induced by spin torque in nanoscale magnetic tunnel junctions*”, Appl. Phys. Lett. **103**, 082402 (2013).
- 90.** Graham E. Rowlands, Jian Zhu, Jordan A. Katine, Juergen Langer, Ilya N. Krivorotov, “*Time Domain Mapping of Spin Torque Oscillator Effective Energy*”, Phys. Rev. Lett. **111**, 087206 (2013).
- 89.** Richard Dorrance, Juan G. Alzate, Sergiy S. Cherepov, Pramey Upadhyaya, Ilya N. Krivorotov, Jordan A. Katine, Juergen Langer, Kang L. Wang, Pedram Khalili Amiri, Dejan Markovic “*Diode-MTJ Crossbar Memory Cell Using Voltage-Induced Unipolar Switching for High-Density MRAM*”, Electr. Dev. Lett. **34**, 753 (2013).
- 88.** Zhongming Zeng, Giovanni Finocchio, Baoshun Zhang, Pedram Khalili Amiri, Jordan A. Katine, Ilya N. Krivorotov, Yiming Huai, Juergen Langer, Bruno Azzaroni, Kang L. Wang, Hongwen Jiang, “*Ultralow-current-density and bias-field-free spin-transfer nano-oscillator*”, Scientific Reports **3**, 1426 (2013).
- 87.** D. A. Telesca, A. Sharma, C. Mayberry, H. Deryb, H. Wu, B. Ciftcioglu, M. Huang, Y. Song, R. Kawakami, J. Shi, I. Krivorotov, I. Zutic, L. J. Sham, “*Inherently radiation hardened electronics: An examination of III-V nanowire transistors and spin-based logic devices*”, Nanotechnology 2012: Electronics, devices, fabrication, mems, fluidics and computational **2**, 9 (2012).
- 86.** J. G. Alzate, P. Upadhyaya, M. Lewis, J. Nath, Y. T. Lin, K. Wong, S. Cherepov, P. Khalili Amiri, K.L. Wang, J. Hockel, A. Bur, G. P. Carman, S. Bender, Y. Tserkovnyak, J. Zhu, Y. –J. Chen, I. N. Krivorotov, J. Katine, J. Langer, P. Shabadi, S. Khasanvis, S. Narayanan, C. A. Moritz, A. Khitun, “*Spin Wave Nanofabric Update*”, Proceedings of the 2012 IEEE/ACM International Symposium on Nanoscale Architectures (NANOARCH), 196 (2012).
- 85.** J. G. Alzate, P. K. Amiri, P. Upadhyaya, S. S. Cherepov, J. Zhu, M. Lewis, R. Dorrance, J. A. Katine, J. Langer, K. Galatsis, D. Markovic, I. Krivorotov, K. L. Wang, “*Voltage-Induced Switching of Nanoscale Magnetic Tunnel Junctions*”, IEEE International Electron Devices Meeting (IEDM), IEDM12-681, San Francisco (2012).

- 84.** Guodong Zhu, Kin L. Wong, Jing Zhao, Pedram Khalili Amiri, Jian Zhu, Ilya Krivorotov, and Kang L. Wang, “*Quantitative analysis of electric field induced change in anisotropy field in $\text{Co}_{60}\text{Fe}_{20}\text{B}_{20}/(011) x\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_{3-(1-x)}\text{PbTiO}_3$ ($x \sim 0.68$) heterostructures*”, *Appl. Phys. Lett.* **101**, 202404 (2012).
- 83.** Hui Zhao, Yisong Zhang, Pedram Khalili Amiri, Jordan A. Katine, Juergen Langer, Hongwen Jiang, Ilya N. Krivorotov, Kang L. Wang, and Jian-Ping Wang, “*Spin-Torque Driven Switching Probability Density Function Asymmetry*”, *IEEE Trans. Magn.* **48**, 3818 (2012).
- 82.** Graham E. Rowlands, and Ilya N. Krivorotov, “*Dual Free Layer Spin Torque Oscillator*”, *Phys. Rev. B* **86**, 094425 (2012).
- 81.** David Carlton, Brian Lambson, Zheng Gu, Scott Dhuey, Li Gao, Brian Hughes, Deirdre Olynick, Charles Rettner, Andreas Scholl, Brian Youngblood, Anthony Young, Ilya Krivorotov, Stuart Parkin, Jeffrey Bokor, “*Signal Propagation in Dipole Coupled Nanomagnets for Logic Applications*”, *Proceedings of SPIE*, **8461**, 84610W (2012).
- 80.** Guodong Zhu, Kin L. Wong, J. Zhao, Pedram K. Amiri, Kang L. Wang, J. Hockel, Gregory P. Carman, J. Zhu, and I. Krivorotov, “*The influence of in-plane ferroelectric crystal orientation on electrical modulation of magnetic properties in $\text{Co}_{60}\text{Fe}_{20}\text{B}_{20}/\text{SiO}_2/(011) x\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_{3-(1-x)}\text{PbTiO}_3$ heterostructures*”, *J. Appl. Phys.* **112**, 033916 (2012).
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1. V. I. Ivanov-Omskii, I. N. Krivorotov, and S. G. Yastrebov, "Diamond-like Hydrogenated Copper-doped Carbon: Spectral Interferometry", Tech.Phys. **40** (9), 121 (1995).

Patents

3. R. Beach, D. Apalkov, V. Voznyuk, I. Krivorotov, C. Sha, D. Eparkov, V. Docinayaco, "Method for determining exchange stiffness of free layer residing in magnetic junction, involves driving alternating current through magnetic junction and calculating exchange stiffness of free layer", Patent Number(s): US2018205001-A1; KR2018085342-A; CN108333539-A (2018).
2. T. J. Meitzler, E. N. Bankowski, M. Nranian, I. N. Krivorotov, A. N. Slavin, V. S. Tyberkevych, "Spintronic electronic apparatus for energy harvesting apparatus, operates at out-of-plane (OOP) magnetization and large diode volt-watt sensitivity, when external microwave signals exceeds threshold current with lower frequency", Patent Number(s): US2013099339-A1; US8860159-B2 (2013).
1. A. N. Slavin, I. N. Krivorotov, "Spin-torque devices", Patent Number(s): US2007259209-A1; US7678475-B2 (2007).

Invited Talks

141. High Frequency Spintronics, Web Conference, September 2020, "Magnetization Reversal Driven by Chaos in a Nanoscale Ferromagnet".
140. Quantum Science Workshop, Los Angeles, March 2020, "Magnetic and superconducting nanodevices".

- 139.** University of California at Riverside, November 2019, “*Novel spin torques*”
- 138.** Emerging Frontiers in Research and Innovation, Web Meeting, November 2019, “*Non-reciprocal wave transport in magnetic heterostructures*”.
- 137.** Conference on Magnetism and Magnetic Materials, Las Vegas, November 2019, “*Magnetization Reversal Driven by Chaos in a Nanoscale Ferromagnet*”.
- 136.** Multiuniversity Research Initiative Meeting, Los Angeles, September 2019, “*Magnonic Spin-Orbit Torques*”
- 135.** 4th Keck Energy Materials Program Symposium, Long Beach, September 2019, “*Novel spin torques*”
- 134.** Sixth International Workshop on Magnonics: From Fundamentals to Applications, Carovigno, Italy, July 2019, “*Spin caloritronic nano-oscillator*”
- 133.** International Conference on Nanomagnetism and Spintronics, San Sebastian, Spain, June 2019, “*Planar Hall Torque*”
- 132.** University of California at San Diego, June 2019, “*Novel antidamping spin torques*”
- 131.** International Microwave Symposium, Boston, June 2019, “*Nanoscale non-reciprocal spin-wave-based devices for microwave signal processing*”
- 130.** Texas A&M University, March 2019, “*Spin transfer and magnon condensation in magnetic heterostructures*”
- 129.** Cu Spin 2019 Conference, Copper Mountain, February 2019, “*Planar Hall Torque*”
- 128.** Multiuniversity Research Initiative Meeting, Washington DC, February 2019, “*Planar Hall Torque*”
- 127.** Emerging Frontiers in Research and Innovation Meeting, San Diego, October 2018, “*Non-reciprocal wave transport in magnetic heterostructures*”
- 126.** International Conference on Microwave Magnetics, Exeter, Great Britain, June 2018, “*Planar Hall torque*”.
- 125.** International Conference on Nanomagnetism and Spintronics, San Sebastian, Spain, June 2018, “*Condensation of magnons by spin Seebeck current*”.
- 124.** Nanoelectronics Research Initiative Meeting, Washington DC, October 2017, “*Spin wave devices*”.

123. Intel, September 2017, *“Spin Hall and spin Seebeck oscillators”*
122. University of Texas at Austin, September 2017, *“Condensation of magnons by spin Seebeck current”*
121. Cornell University, September 2017, *“Spin caloritronic nano-oscillator”*
120. Multiuniversity Research Initiative Meeting, Los Angeles, September 2017, *“Spin superfluidity and nonlocal spin transport in topological insulators”*
119. DOE Principal Investigators Meeting, Washington DC, September 2017, *“Superconductor/ferromagnet proximity effect in nanoscale spin valves”*.
118. Center for Nanoferroic Devices Meeting, Lincoln, August 2017, *“Spin Wave Field Effect Transistor”*.
117. Center for Spins and Heat in Nanoscale Electronic Systems Meeting, San Diego, August 2017, *“Easy Plane Spin Hall Oscillator”*.
116. Center for Function Accelerated Nanomaterials Engineering Meeting, Los Angeles, February 2017, *“Spintronic Materials and Devices”*.
115. SHINES Workshop on Spins and Heat, Palm Desert, January 2017, *“Condensation of magnons driven by thermal gradients”*
114. Nanoelectronics Research Initiative Web Seminar, November 2016, *“Excitation and manipulation of spin waves by electric field”*
113. Nanoelectronics Research Initiative Meeting, Washington DC, October 2016, *“Nanowire Spin Wave Devices Utilizing Voltage Controlled Magnetic Anisotropy”*.
112. Multiuniversity Research Initiative Meeting, Los Angeles, September 2016, *“Spin oscillators and spin superfluidity in magnetic matter”*
111. Quantum Spintronics Workshop, Mainz, Germany, September 2016, *“Condensation of magnons driven by thermal gradients”*
110. Center for Nanoferroic Devices Meeting, Lincoln, August 2016, *“Nanowire Spin Wave Devices Utilizing Voltage Controlled Magnetic Anisotropy”*.
109. Center for Spins and Heat in Nanoscale Electronic Systems Meeting, Riverside, August 2016, *“Heat driven spin currents and spin supercurrents”*.
108. Spin Caloritronics Conference, Utrecht, Netherlands, July 2016, *“Condensation of magnons driven by thermal gradients”*

- 107.** Defense Threat Reduction Agency Meeting, Irvine, April 2016, *“Fabrication and electrical characterization of magnetic tunnel junctions”*.
- 106.** Center for Function Accelerated Nanomaterials Engineering Meeting, Los Angeles, February 2016, *“Multiferroic and Spintronic Materials for Nanoscale Magnetic Devices”*.
- 105.** Center for Spins and Heat in Nanoscale Electronic Systems Meeting, Washington DC, January 2016, *“Superfluid spin transport”*.
- 104.** Magnonics: Spin Waves Connecting Charges, Spins and Photons Conference, Bad Honnef, Germany, January 2016, *“Spin torque oscillators driven by spin orbit and thermal torques”*.
- 103.** STT-MRAM Global Innovation Forum, San Jose, November 2015, *“Characterization of perpendicular STT-MRAM by spin torque ferromagnetic resonance”*.
- 102.** Nanoelectronics Research Initiative Meeting, Washington DC, October 2015, *“Spin Wave Devices Based on Voltage Controlled Magnetic Anisotropy”*.
- 101.** DOE Principal Investigators Meeting, Washington DC, September 2015, *“Nanoscale magnetic Josephson junctions and superconductor/ferromagnet proximity effects”*.
- 100.** Center for Spins and Heat in Nanoscale Electronic Systems Meeting, Long Beach, September 2015, *“Spin currents in magnetic insulators”*.
- 99.** Center for Nanoferroic Devices Meeting, Lincoln, September 2015, *“Nanowire Spin Wave Devices Based on Voltage Controlled Magnetic Anisotropy”*.
- 98.** Nanoelectronics Beyond 2020 Meeting, Riverside, August 2015, *“Spin Torque for Magneto-Logic Gate”*.
- 97.** Fourth International Workshop on Magnonics: From Fundamentals to Applications, Kloster Seeon, Germany, August 2015, *“Nanowire spin orbit torque oscillator”*.
- 96.** Global Foundries, August 2015, *“Spin-orbitronics in metallic nanostructures”*
- 95.** Center for Spins and Heat in Nanoscale Electronic Systems Meeting, Riverside, May 2015, *“Magnetization dynamics driven by pure spin currents”*.
- 94.** Workshop on Static and Dynamic Interfacial Effects in Magnetism, Washington DC, April 2015, *“Spin orbit Coupling and Dzyaloshinskii-Moriya interaction at interfaces”*.
- 93.** University of Southern California, March 2015, *“Spin-orbitronics in metallic nanostructures”*
- 92.** Center for Function Accelerated Nanomaterials Engineering Meeting, Los Angeles, February 2015, *“Multiferroic and Spintronic Materials for Nanoscale Magnetic Devices”*.

- 91.** University of California at Irvine, January 2015, “*Spin-orbitronics in metallic nanostructures*”
- 90.** Center for Spins and Heat in Nanoscale Electronic Systems Meeting, Riverside, November 2014, “*Spin orbit torques in nanomagnetic systems*”
- 89.** Conference on Magnetism and Magnetic Materials, Honolulu, November 2014, “*Nanowire spin torque oscillator driven by spin orbit torques*”.
- 88.** Stanford University, October 2014, “*Spin-orbitronics in metallic nanostructures*”
- 87.** Simon Fraser University, October 2014, “*Spin-orbitronics in metallic nanostructures*”
- 86.** Nanoelectronics Research Initiative Meeting, Washington DC, October 2014, “*Voltage Control of Spin Waves*”.
- 85.** Center for Nanoferroic Devices Meeting, Lincoln, September 2014, “*Nanowire Spin Wave Devices Utilizing Voltage Controlled Magnetic Anisotropy*”.
- 84.** Nanoelectronics Beyond 2020 Meeting, Riverside, August 2014, “*Spin Torque Devices for Magneto-Logic Gates*”.
- 82.** Moscow International Symposium on Magnetism, Moscow, July 2014, “*Nanowire spin torque oscillator driven by spin orbit torques*”.
- 81.** IBM Research Center at Almaden, July 2014, “*Nanowire spin torque oscillator driven by spin orbit torques*”
- 80.** Center for Function Accelerated Nanomaterials Engineering Meeting, Los Angeles, May 2014, “*Recent Progress in Multiferroic and Spintronic Materials*”.
- 79.** Samsung Global Research Outreach Meeting, Irvine, March 2014, “*Spin torque ferromagnetic resonance with field modulation for STT-MRAM characterization*”.
- 78.** University of Minnesota, January 2014, “*Tunable triplet superconductivity in spin valve/superconductor multilayers*”
- 77.** University of Minnesota, January 2014, “*Spin-orbitronics in metallic nanostructures*”
- 76.** Nanoelectronics Research Initiative Meeting, Washington DC, October 2013, “*Voltage-Driven Spin Waves in Nanowires*”.
- 75.** Center for Function Accelerated Nanomaterials Engineering Meeting, Los Angeles, October 2013, “*Nanowire spin Hall oscillator*”.

74. Center for Nanoferroic Devices Meeting, Lincoln, October 2013, "*Generation and Control of Spin Waves by Voltage*".
73. KITP Spintronics Conference, Santa Barbara, October 2013, "*Nanowire spin torque oscillator driven by spin orbit torques*".
72. Nanoelectronics Research Initiative Web Seminar, October 2013, "*Voltage-Induced Ferromagnetic Resonance in Magnetic Tunnel Junctions*"
71. Nanoelectronics Beyond 2020 Meeting, Riverside, July 2013, "*Spin Torque Writing for Magneto-Logic Gates*".
70. National Institute of Standards and Technology, Boulder, April 2013, "*Control of spin waves with electric fields and pure spin currents*"
69. University of Colorado at Colorado Springs, April 2013, "*Control of spin waves with electric fields and pure spin currents*"
68. Colorado State University at Fort Collins, April 2013, "*Control of spin waves with electric fields and pure spin currents*"
67. American Physical Society March Meeting, Baltimore, March 2013, "*Voltage-Induced Ferromagnetic Resonance in Magnetic Tunnel Junctions*".
66. Center for Function Accelerated Nanomaterials Engineering Meeting, Los Angeles, February 2013, "*Multiferroic and Spintronic Materials*".
65. IARPA Cryogenic Memory Meeting, Irvine, October 2012, "*Spin valve memory for Single Flux Quantum logic*".
64. Western Institute of Nanoelectronics Workshop, Los Angeles, October 2012, "*Spin Torque Oscillator Enabled by Spin Hall Effect*".
63. Nanoelectronics Research Initiative Architectures and Benchmarking Workshop, South Bend, August 2012, "*Spin torque nanooscillator logic*".
62. Device Research Conference, College Park, June 2012, "*Ultrafast Spin Torque Memory Based on Magnetic Tunnel Junctions with Combined In-plane and Perpendicular Polarizers*".
61. Intel, February 2012, "*Spin Torque Ferromagnetic Resonance*"
60. The 7th Taiwan International Conference on Spintronics, Puli, Taiwan, December 2011, "*Voltage-induced ferromagnetic resonance in magnetic tunnel junctions*".
59. Western Institute of Nanoelectronics Workshop, Los Angeles, October 2011, "*Spin torque oscillator logic*".

58. Micron Technologies, October 2011, *“Spin Torque Memory”*
57. Second International Workshop on Magnonics: From Fundamentals to Applications, Recife, Brazil, August 2011, *“Thermally-assisted nonlinear dynamics of a nanomagnet excited by spin transfer torque”*
56. University of South Carolina, April 2011, *“Nanomagnets and Spin Currents: Nonlinear Dynamics Excited by Spin Torque”*
55. University of Minnesota, April 2011, *“Nanomagnets and Spin Currents: from Magnetotransport to Nonlinear Dynamics”*
54. University of Minnesota, April 2011, *“Spin Torque Devices: Memory, Sensors and Oscillators”*
53. University of California at Irvine, December 2010, *“Nanomagnets and Spin Currents: from Nonlinear Dynamics to Spintronics”*
52. University of California at San Diego, October 2010, *“Spin Torque Devices for Memory, Microwave Detection and Magnetic Field Sensing”*
51. University of California at San Diego, October 2010, *“Strongly Nonlinear Magnetization Dynamics Excited by Spin-Polarized Currents”*
50. International Workshop on Physics of Spin Transfer Torque, Duisburg, Germany, October 2010, *“Magnetic domain wall dynamics excited by spin torque in the current-perpendicular-to-plane geometry”*.
49. Western Institute of Nanoelectronics Workshop, Los Angeles, October 2010, *“Magnetic Stochastic Resonance for Microwave Signal Processing”*.
48. University of Central Florida, October 2010, *“Spin Transfer and Nonlinear Magnetization Dynamics in Ferromagnetic Nanostructures”*
47. Texas A&M University, September 2010, *“Spin Transfer and Nonlinear Magnetization Dynamics in Ferromagnetic Nanostructures”*
46. SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia, August 2010, *“Resonant nonlinear damping of quantized spin waves in ferromagnetic nanowires”*.
45. University of Utah, April 2010, *“Nonlinear Magnetization Dynamics Excited by Spin-Polarized Currents”*
44. German Physical Society Meeting, Regensburg, Germany, March 2010, *“Stochastic resonance of a nanomagnet excited by spin transfer torque”*.

43. Ohio State University, February 2010, *“Nonlinear Magnetization Dynamics Excited by Spin-Polarized Currents”*
42. Western Institute of Nanoelectronics Workshop, Los Angeles, October 2009, *“Domain Wall Spin Torque Amplifier”*.
41. Nanoelectronics Research Initiative Web Seminar, August 2009, *“Spin Torque Spintronic Devices”*
40. International Magnetism Conference (INTERMAG), Sacramento, May 2009, *“Spectral Linewidth and Lineshape of a Spin Torque Oscillator”*.
39. 13th Advanced Heterostructures and Nanostructures Workshop, Kohala Coast, December 2008, *“Spin waves excited by spin transfer torque in ferromagnetic nanowires”*.
38. University of Southern California, December 2008, *“Tsunami in a Nanomagnet: Nonlinear Spin Waves Excited by Spin Current”*
37. Western Institute of Nanoelectronics Workshop, Berkeley, September 2008, *“Spin Torque Spectroscopy of Spin Waves in Ferromagnetic Nanowires”*.
36. Gordon Research Conference on Magnetic Nanostructures, Aussois, France, August 2008, *“Nonlinear Magnetization Dynamics Excited by Spin Transfer Torque”*.
35. Hitachi Global Storage Technologies, August 2008, *“Strongly nonlinear regimes of current-driven magnetization dynamics”*
34. International Magnetism Conference (INTERMAG), Madrid, Spain, May 2008, *“Time-Domain Studies of Nonlinear Magnetization Dynamics Excited by Spin Transfer Torque”*.
33. California State University at Long Beach, April 2008, *“Nanomagnets at a Spin”*
32. Workshop “Emerging Materials for Microwave Applications”, Costa Mesa, November 2007, *“Spin waves excited by spin torque in ferromagnetic nanowires and their microwave device applications”*.
31. University of Southern California, September 2007, *“Nanomagnets at a Spin”*
30. California State University at Los Angeles, March 2007, *“Nanomagnets at a Spin”*
29. American Physical Society March Meeting, Denver, March 2007, *“Energy and Length Scales in the Exchange Bias Problem”*.
28. University of California at Los Angeles, February 2007, *“Magnetization Dynamics Driven by Spin-Polarized Current”*

27. University of California at Riverside, November 2006 “*Magnetization Dynamics Driven by Spin-Polarized Current*”
26. University of California at San Diego, October 2006, “*Magnetization Dynamics Driven by Spin-Polarized Current*”
25. RQEMP Summer School, Quebec, Canada, August 2006, “*Magnetization Dynamics Driven by Spin-Polarized Current*”
24. International Magnetism Conference (INTERMAG), San Diego, May 2006, “*Current-driven spin wave modes in metallic nanomagnets*”.
23. California State University at Northridge, May 2006, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”
22. California Symposium on nanomagnetism, Irvine, April 2006, “*Current-driven spin wave modes in metallic nanomagnets*”.
21. International Argonne Fall Workshop on Nanophysics V: Nanoscale Superconductivity and Magnetism, Argonne, November 2005, “*Spin Transfer in Nanomagnets*”.
20. Argonne National Laboratory, July 2005 “*Spin Transfer in Nanomagnets*”
19. Conference on Modulated Semiconductor Structures, Albuquerque, July 2005, “*Dynamics of Nanomagnets Driven by Spin Current*”.
18. Workshop on Spin Transport and Dynamics in Nanostructures, Minneapolis, May 2005, “*Dynamics of Nanomagnets Driven by Spin Current*”.
17. American Physical Society March Meeting, Los Angeles, March 2005, “*Time-Domain Measurements of Nanomagnet Dynamics Driven by Spin-Polarized Current*”.
16. University of Illinois, Chicago, March 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
15. University of California, Irvine, March 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
14. University of Oregon, Eugene, March 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
13. Iowa State University, Ames, March 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.

12. University of Delaware, Newark, February 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
11. University of Utah, Salt Lake City, February 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
10. Purdue University, West Lafayette, February 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
9. Georgia Institute of Technology, Atlanta, February 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
8. Simon Fraser University, Burnaby, February 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
7. University of Wisconsin, Madison, February 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
6. University of Alabama, Tuscaloosa, January 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
5. North Carolina State University, Raleigh, January 2005, “*Dynamics of Nanomagnets Driven by Spin-Polarized Current*”.
4. Conference on Magnetism and Magnetic Materials, Jacksonville, November 2004, “*Time-Resolved Measurements of Spin-Transfer-Induced Switching and Dynamics of Nanomagnets*”.
3. 5th International Symposium on Metallic Multilayers, Boulder, June 2004, “*Dynamics of Nanomagnets Excited by Spin-Polarized Current*”.
2. Cornell University, April 2002, “*Exchange Anisotropy in Ferromagnetic/Antiferromagnetic Bilayers*”
1. American Physical Society March Meeting, Indianapolis, March 2002, “*Exchange Coupling and Magnetotransport in Manganite-Based Heterostructures*”.