

IGOR ŽUTIĆ

Curriculum Vitae

Department of Physics

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EDUCATION:

- Ph.D., Physics, University of Minnesota, 9/1992-8/1998, GPA 4.00/4.00.
Thesis Title: "Nonlinear Electrodynamics of High Temperature Superconductors."
- B.Sc., Physics, University of Zagreb, Croatia, 10/1987-8/1992.
- University of Zagreb, Graduate School, Mathematics Department (attended as an undergraduate).

EMPLOYMENT AND POSITIONS:

- Appointed at SUNY Buffalo: August 2005, Highest Rank (Professor): August 2013.
- **Professor**, Department of Physics, University at Buffalo, State University of New York, August 2013-Present.
- **Adjunct Professor**, Department of Physics, University of Rijeka, Croatia, December 2017-Present.
- **Associate Professor**, Department of Physics, University at Buffalo, State University of New York, August 2009-July 2013.
- **Assistant Professor**, Department of Physics, University at Buffalo, State University of New York, August 2005-July 2009.
- **Visiting Professor**, Ecole Polytechnique, Universite Paris-Saclay, Palaiseau, France, Spring 2019, Institute for Theoretical Physics, University of Regensburg, Germany, Winter 2019, Winter 2012.
- **National Research Council Postdoctoral Fellow**, Center for Computational Materials Science, Naval Research Laboratory, Washington, D.C. Supervisor: Dr. Steven C. Erwin. November 2003-August 2005.
- **Postdoctoral Research Associate**, Department of Physics, University of Maryland, College Park, MD. Supervisor: Prof. Sankar Das Sarma. September 1998-October 2003.
- **Research Assistant and Graduate School Fellow**, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN. Academic Advisor: Prof. Oriol T. Valls. September 1994-August 1998.
- **Teaching Assistant**, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN. Supervisor: Prof. Oriol T. Valls. September 1992-August 1994.

AREAS OF SPECIALIZATION:

- Theoretical Condensed Matter Physics

- Computational Physics

RESEARCH ACTIVITIES:

- Spintronics and Spin-Dependent Phenomena
- Magnetism in Semiconductors and their Nanostructures
- Unconventional Superconductivity
- Semiconductor Spin Lasers
- Proximity Effects
- van der Waals Heterostructures
- Topological Materials and Majorana Fermions

HONORS AND AWARDS:

- 2016 Fellow of the American Physical Society.
- 2006 National Science Foundation CAREER Award.
- 2005 National Research Council/American Society for Engineering Education Post-doctoral Research Publication Award.
- National Research Council Fellowship 2003-2005.
- University of Minnesota Graduate School Doctoral Dissertation Fellowship 1997-1998.
- Supplemental Research Fellowship, University of Minnesota 1997.
- Stanwood Johnston Memorial Fellowship, University of Minnesota 1995-1996.
- Foster Wheeler Fellowship, University of Minnesota 1994-1995.
- Outstanding GPA Fellowship, University of Zagreb, Institute for Physics 1989-1992.
- Outstanding Academic Performance Fellowship, City of Zagreb 1988-1991.

GRANTS:

- Principal Investigator, National Science Foundation, "Bipolar Spintronic Devices with Two-Dimensional Systems," ECCS-1810266, Budget: \$317,804, 9/2018-8/2021.
- Principal Investigator (with Co-PI: J. E. Han, UB), subcontract from New York Univ. (PI: J. Shabani), Defense Advanced Research Projects Agency, "Engineering Topological States Using Electrically-Tunable Magnetic Chains," D18AP900007, Budget: \$406,790, 2/2018-7/2021.
- Principal Investigator (with Co-PI: A. Matos-Abiague, Wayne State Univ.), Office of Naval Research, "Nanoelectronics with Proximitized Materials," N000141712793, Budget: \$421,475, (subcontract to Wayne State Univ. \$100,000) 9/2017-8/2020.
- Principal Investigator (with Co-PI: A. Matos-Abiague, Wayne State Univ.), Department of Energy, "Semiconductor Nanostructures: Magnetism, Spin-Orbit Coupling, and Superconductivity," DE-SC0004890, Budget: \$420,000 12/2016-12/2019.
- Principal Investigator, National Science Foundation, "Using Spin-Polarized Carriers in Semiconductor Lasers for Optical Interconnects," ECCS-1508873, Budget: \$303,363, 7/2015-6/2018.

- Principal Investigator, National Science Foundation, “Using Spin-Polarized Carriers in Semiconductor Lasers for Optical Interconnects,” Research Experience for Undergraduates, ECCS-1508873 Budget: \$6,000, 5/2016-4/2017.
- Principal Investigator, US Office of Naval Research, “Bipolar Spintronics: Materials and Devices,” N000141310754, Budget: \$300,125, 7/2013-6/2016 (no cost extension 8/2016-3/2017).
- Co-Principal Investigator (with PI: P. Lazić, Institute Rudjer Bošković, Zagreb, Croatia), Unity Through Knowledge Fund (UKF), Croatian Science Foundation, Van der Walls Heterostructures: Fundamentals and Applications, Budget: 1,098,824 HRK (\$165,000), 12/2015-12/2017.
- Principal Investigator, (with Co-PI: A. G. Petukhov, South Dakota School of Mines and Technology), Department of Energy, “Unconventional Spin and Orbital Ordering in Semiconductor Nanostructures,” DE-SC0004890, Budget: \$420,000 (subcontract to SDSM&T \$80,000), 9/2013-8/2016 (no cost extension 9/2016-12/2016).
- Co-Principal Investigator (with PI: R. Kawakami, University of California, Riverside, Co-PIs: Lu Sham, University of California, San Diego, I. Kirvorotov, University at California, Irvine, H. Dery, University of Rochester), National Science Foundation and Semiconductor Research Corporation, “Nanoelectronics Beyond 2020: Developing a Graphene Spin Computer: Materials, Devices, Modeling, and Circuit Design,” DMR-1124601, Budget: \$236,800, (subcontract to University at Buffalo), 9/2011-8/2015.
- Principal Investigator, National Science Foundation, “Semiconductor Spin-Lasers,” ECCS-1102092, Budget: \$295,500, 9/2011-12/2014.
- Principal Investigator (with Co-PI: A. G. Petukhov, South Dakota School of Mines and Technology), Department of Energy, “Tailoring Magnetism and Spin in Quantum Dots,” DE-SC0004890, Budget: \$420,000 (subcontract to SDSM&T \$119,736), 9/2010-8/2013.
- Principal Investigator, US Office of Naval Research, “Bipolar Spintronics,” (original submission and renewal) N0000140610123, Budget: \$573,625, Direct Costs: \$365,680, 1/2006-12/2012. (Renewal for 1/2010-12/2012, Budget: \$290,436 (no cost extension, 1/2013-12/2013).
- Co-Principal Investigator (with PI: H. Dery, University of Rochester), Air Force Office of Scientific Research, “Controlling Magnetic and Optical Response for Spin-Based Information Transfer,” FA9550-09-1-0493, Budget: \$275,000 (subcontract to University at Buffalo), 6/2009-5/2012.
- Principal Investigator, National Science Foundation CAREER Award, “Spin-Polarized Transport and Spintronic Devices,” ECCS-054782, Budget: \$ 400,000, 5/2006-4/2011 (no cost extension 5/2011-4/2012).
- Principal Investigator, National Science Foundation, “Spin-Polarized Transport and Spintronic Devices,” Research Experience for Undergraduates, ECCS-054782, Budget: \$6,000, 5/2009-4/2011.
- Principal Investigator, US Office of Naval Research, “The 6th International School and Conference on Spintronics and Quantum Information Technology (SPINTECH 6),” Matsue, Shimane, Japan, August 1-5, 2011. N0001406101239 P00009, Budget: \$15,000, 5/2011-5/2012.
- Principal Investigator, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, “Magnetism in Quantum Dots,” Supercomputer Grant CNMS2007-098,

3/2007-2/2009.

- Principal Investigator, Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Theory of Spin-Polarized Transport in Semiconductor Nanostructures, Supercomputer Grant CNMS2004-015, 3/2004-2/2006.
- Co-Principal Investigator (with PI: S. Das Sarma), National Science Foundation, "Spin Electronics," ECS-0200172, Budget: \$300,000, 5/2002-4/2005.
- Principal Investigator, US Office of Naval Research Grant N000140210816 for the Symposia Series: "Novel Aspects of Spintronic Materials and Devices," Material Research Society Meeting, Boston, MA, December 2-6, 2002, Budget: \$5,000.
- Raised funds for the organization of "Spintronics 2001: International Conference of Novel Aspects of Spin-Polarized Transport and Spin Dynamics," Washington D.C., August 9-11, 2001, including \$ 5,000 from Defense Advances Research Project Agency, \$ 5,000 from US Office of Naval Research, and as Co-Principal Investigator (with PI: J. Freericks), National Science Foundation Grant DMR-0108908, Budget: \$4,300.

PROFESSIONAL MEMBERSHIP:

- American Physical Society, IEEE Magnetics Society Technical Committee.

PROFESSIONAL SERVICE ACTIVITIES:

Referee for Journals:

- Reviews of Modern Physics, Science, Nature, Nature Materials, Nature Physics, Nature Chemistry, Nature Nanotechnology, Nature Photonics, Nature Electronics, Nature Communications, Physical Review Letters, Physical Review B, Physical Review X, Nano Letters, ACS Nano, Proceedings of the National Academy of Sciences, Europhysics Letters, Nanotechnology, Applied Physics Letters, AIP Advances, Optics Letters, Optics Express, New Journal of Physics, Scientific Reports, Journal of the American Chemical Society, Journal of Physical Chemistry, Journal of Physical Chemistry Letters, Journal of Applied Physics, Solid State Communications, Nanoscale Research Letters, Physica A, Physica B, Physica C, Physica E, Physica Status Solidi (B), Journal of Physics: Condensed Matter, Journal of Physics D: Applied Physics, Physical Letters A, Journal of Physics and Chemistry of Solids, Journal of Superconductivity, Solid-State Electronics, Semiconductor Science and Technology, Journal of Optics, IEEE Transactions on Electronic Devices, IEEE Transactions on Magnetics, ACS Applied Materials Interfaces, Journal of Magnetism and Magnetic Materials, Materials, Journal of Nanotechnology in Engineering and Medicine.

Referee for Book Publishers:

Taylor & Francis, CRC Press and Springer.

Referee for National and International Funding Agencies:

- National Science Foundation (Panel Review Member February 2018, March 2017, March 2016, May 2014, March 2014, February 2013, February 2012, October 2007, January 2007, May 2006, Washington, D.C.), Department of Energy, U.S. Civilian Research and Development Foundation, Deutsche Forschungsgemeinschaft (Panel Review Member February 2011, Bad Honnef, Germany), The Royal Society, National Commission for Scientific & Technological Research of Chile, Natural Sciences and Engineering Research Council of Canada, Japan Society for the Promotion of Science, Science Foundation Ireland (Panel Review Member November 2013, October 2011, Dublin, Ireland), The Foundation for Polish Science, The Romanian National Council

for Scientific Research, Czech Science Foundation, The Fund for Scientific Research-FNRS, Belgium, Research Grants Council of Hong Kong, and Austrian Science Fund, Linz Institute of Technology - LIT, National Research Foundation of Korea (NRF), European Research Council, Canada Research Chairs.

Synergistic Activities:

- International Scientific Committee of the University of Rijeka, Croatia, January 2018-present (covering diverse fields and also including faculty from University of Washington, MIT, and University of California, Santa Barbara).
- Program Committee of Spintronics XII, SPIE Optics+Photonics, San Diego, CA, August 11-15, 2019.
- Program Committee of the Magnetism and Optics Research International Symposium, MORIS 2019, Prague, Czech Republic, June 23-26, 2019.
- Program Committee of Spintronics XI, SPIE Optics+Photonics, San Diego, CA, August 19-24, 2018.
- Advisory Board Member of the 6th International Conference on Superconductivity and Magnetism, ICSM2018, Lykia, Turkey, April 29-May 4, 2018.
- Program Committee of the Magnetism and Optics Research International Symposium, MORIS 2018, New York City, NY, January 7-10, 2018.
- Program Committee of the ICAM Workshop on Spin, Charge, and Energy Transport in Novel Materials, Hvar, Croatia, October 1-7, 2017.
- Program Committee of Spintronics X, SPIE Optics+Photonics, San Diego, CA, August 6-10, 2017.
- Program Committee of Spintronics IX, SPIE Optics+Photonics, San Diego, CA, August 28-September 1, 2016.
- Advisory Board Member of the 5th International Conference on Superconductivity and Magnetism, ICSM2016, Fethiye, Turkey, April 24-30, 2016.
- Program Committee of the Magnetism and Optics Research International Symposium, MORIS 2015, Penang, Malaysia, November 29-December 2, 2015.
- Program Committee of Spintronics VIII, SPIE Optics+Photonics, San Diego, CA, August 9-13, 2015.
- Program Committee of the 59th Conference on Magnetism and Magnetic Materials, Honolulu, HI, November 3-7, 2014. <http://www.magnetism.org/>
- Program Committee of Spintronics VII, SPIE Optics+Photonics, San Diego, CA, August 17-21, 2014.
- Vice-Chair Program Committee of the Magnetism and Optics Research International Symposium, MORIS 2013, Omiya Sonic City, Saitama, Japan, December 2-5, 2013.
- Technical Committee Member IEEE Magnetism Society.
- Program Committee of the 2014 CMOS Emerging Technologies Workshop, Grenoble, France, July 7-8, 2014.
- Program Committee of Spintronics VI, SPIE Optics+Photonics, San Diego, CA, August 25-29, 2013.

- Program Committee of the 2013 CMOS Emerging Technologies Workshop, Whistler, Canada, BC July 17-19, 2013.
- Program Committee of the Joint Magnetism and Magnetic Materials - INTERMAG Conference, Chicago, IL, January 14-18, 2013.
- Technical Chair of the New Device Concepts at the 39th International Symposium on Compound Semiconductors-ISCS 2012, Santa Barbara, CA, August 27-30, 2012.
- Program Committee of Spintronics V, SPIE Optics+Photonics, San Diego, CA, August 12-16, 2012.
- Program Committee of the 2012 CMOS Emerging Technologies, Vancouver, BC, Canada, July 18-20, 2012.
- Organizer of Spintronics Tutorial, American Physical Society March Meeting, Boston, MA, February 26, 2012, five presentations and over 100 participants.
- Program Committee of Spintronics IV, SPIE Optics+Photonics, San Diego, CA, August 21-25, 2011.
- Advisory Committee of the Sixth International School and Conference on Spintronics and Quantum Information Technology SPINTECH 6, Matsue, Shimane, Japan, August 1-5, 2011.
- Program Committee of the 55th Conference on Magnetism and Magnetic Materials, Atlanta, GA, November 7-11, 2010.
- Advisory Committee of the Fifth International School and Conference on Spintronics and Quantum Information Technology SPINTECH 5, Kraków, Poland, July 7-11, 2009.
- Organizer and Chair of the Invited Symposium: Tunneling Magnetoresistance: Yesterday, Today, and Tomorrow, American Physical Society March Meeting, New Orleans, LO, March 10-14, 2008 (over 150 attendants).
- Co-Organizer of the Focused Topic: Spin-Dependent Phenomena in Semiconductors, American Physical Society March Meeting, Denver, CO, March 5-9, 2007 (lasting 5 days with over 150 presentations).
- Gordon Research Conference on Magnetic Nanostructures, discussion leader, Oxford University, U.K., September 3-8, 2006.
- Department of Energy Workshop on Superconductivity, subpanel writer for Theory of Superconducting Interface Phenomena, Washington, D.C., May 8-11, 2006. http://www.sc.doe.gov/bes/reports/files/SC_rpt.pdf
- Program Committee of the 49th Conference on Magnetism and Magnetic Materials, Jacksonville, FL, November 7-11, 2004. <http://www.magnetism.org/>
- Co-Chair of the Symposia Series: Novel Aspects of Spintronic Materials and Devices, Material Research Society Meeting, Boston, MA, December 2-5, 2002. <http://www.mrs.org/meetings/fall2002/cfp/p.html>
- Proposed, chaired and co-organized Spintronics 2001: International Conference on Novel Aspects of Spin-Polarized Transport and Spin Dynamics, Washington D.C., August 9-11, 2001 (featured in 8/21/2001 New York Times article).
- Guest Editor for the February 2002 issue (Vol. **15**, No. 1) of Journal of Superconductivity (Spintronics 2001: Novel Aspects of Spin-Polarized Transport and Spin

Dynamics).

TEACHING EXPERIENCE:

Courses Taught at University at Buffalo

Year	Course	Number of Students	Contribution
2019-Spring	Sabbatical		
2018-Fall	513 Electrodynamics 1	13	100 %
	600 Graduate Research	2	100 %
2018-Spring	514 Electrodynamics 2	18	100 %
	600 Graduate Research	2	100 %
2017-Fall	513 Electrodynamics 1	19	100 %
	600 Graduate Research	2	100 %
2017-Spring	514 Electrodynamics 2	13	100 %
	600 Graduate Research	2	100 %
2016-Fall	513 Electrodynamics 1	15	100 %
	600 Graduate Research	2	100 %
2016-Spring	514 Electrodynamics 2	14	100 %
	600 Graduate Research	1	100 %
	498 Undergraduate Research	1	100 %
2015-Fall	513 Electrodynamics 1	18	100 %
	600 Graduate Research	1	100 %
	498 Undergraduate Research	1	100 %
2015-Spring	514 Electrodynamics 2	11	100 %
	600 Graduate Research	2	100 %
	498 Undergraduate Research	1	100 %
	497 Honors in Physics	1	100 %
2014-Fall	513 Electrodynamics 1	12	100 %
	600 Graduate Research	2	100 %
	497 Honors in Physics	2	100 %
2014-Spring	514 Electrodynamics 2	21	100 %
	600 Graduate Research	2	100 %
	598 Independent Study	1	100 %
	498 Undergraduate Research	1	100 %
2013-Fall	513 Electrodynamics 1	19	100 %
	600 Graduate Research	2	100 %
	498 Undergraduate Research	2	100 %
2013-Spring	514 Electrodynamics 2	10	100 %
	600 Graduate Research	2	100 %
2012-Fall	301 Intermediate Mechanics 1	32	100 %
	600 Graduate Research	2	100 %
2012-Spring	Sabbatical		
	600 Graduate Research	2	100 %
2011-Fall	301 Intermediate Mechanics 1	37	100 %
	600 Graduate Research	2	100 %
2011-Spring	514 Electrodynamics 2	9	100 %
	600 Graduate Research	2	100 %
2010-Fall	513 Electrodynamics 1	10	100 %
	600 Graduate Research	2	100 %
2010-Spring	514 Electrodynamics 2	12	100 %
	539 Quantum Theory of Solids	8	25 %
	600 Graduate Research	1	100 %
	598 Independent Study	2	100 %

2009-Fall	513 Electrodynamics 1	13	100 %
	598 Independent Study	3	100 %
2009-Spring	514 Electrodynamics 2	11	100 %
	598 Independent Study	2	100 %
	499 Independent Study	1	100 %
2008-Fall	513 Electrodynamics 1	18	100 %
	598 Independent Study	1	100 %
2008-Spring	302 Intermediate Mechanics 2	14	100 %
	598 Independent Study	1	100 %
2007-Fall	513 Electrodynamics 1	22	100 %
	598 Independent Study	1	100 %
2007-Spring	102 College Physics 2	234	100 %
	602 Department Colloquium	44	100 %
2006-Fall	101 College Physics 1	212	100 %
	598 Independent Study	1	100 %
2006-Spring	Teaching Release		
2005-Fall	101 College Physics 1	209	100 %

Experience Prior to University at Buffalo

- Postdoctoral Associate, Department of Physics, University of Maryland, 2000-2001. Teaching (lectures) Undergraduate Quantum Physics (Physics 402, Quantum Physics II) and Graduate Quantum Mechanics (Physics 623, Introduction to Quantum Mechanics II).
- Teaching Assistant, Department of Physics, University of Minnesota, 1992-1997. Teaching (laboratories and recitations) and laboratory development for lower level courses (Physics 1251-1254, and Honors Physics H1451-1454), grading for upper level undergraduate courses (Thermal and Statistical Physics 5201,5202, and Solid State Physics 5211).
- Developing problems and appendices for Physics 1252 and 1253 (Calculus based Introductory course at the University of Minnesota) Laboratory Manual.
<http://www.physics.umn.edu/groups/phised/Research/PSL/1252toc.html>
<http://www.physics.umn.edu/groups/phised/Research/PSL/1253toc.html>

ACADEMIC ADVISING:

PhD Students:

- Gaofeng Xu 2014-. 2018 Dissertation Fellowship, University at Buffalo. 2015 The Physics Graduate Students Memorial Fellowship, University at Buffalo. Research Topics: Spin-Lasers, Quantum Optics, Transition Metal Dichalcogenides.
- Chenghao Shen 2015-. Research Topics: Ferromagnet/Superconductor Junctions, Topological Insulators, Spin Caloritronics, Majorana Fermions.
- Velimir Labinac 2018-. Research Topics: Spin-Lasers, Proximitized Materials. Attending University of Rijeka, Croatia.
- Kristian Stojšić 2018-. Research Topics: Ferromagnet/Superconductor Junctions, Majorana Fermions. Attending University of Rijeka, Croatia, President's award for the best Undergraduate Thesis.
- James Pientka 2009-2015. Research Topics: Studies of Magnetic Ordering in Semiconductors and Their Nanostructures, Monte Carlo Simulations of Magnetism. Ph.D. Thesis Defense: Magnetic Ordering in Quantum Dots, 5/2016. Current Position: Assistant Professor, St. Bonaventure University, St. Bonaventure, NY.

- Jeongsu Lee 2009-2014. 2013 Dissertation Fellowship, University at Buffalo, 2011 Korean-American Scientists and Engineers Association Graduate Scholarship Award. Research Topics: Spintronics, Theory of Spin-Polarized Semiconductor Lasers, Magnetic Quantum Dots, Ferromagnetic Semiconductors. Ph.D. Thesis Defense: Semiconductor Nanostructures in Spintronics: From Spin Lasers to Nodal States, 8/2014. Current Position: Postdoctoral Fellow, University of Regensburg, Germany.
- Paulo Faria, Jr. 2014-2015 (co-advisor). Recipient of a national fellowship from Brazil fully supporting his stay at the UB as an exchange student from Instituto de Física de São Carlos, Universidade de São Paulo, São Carlos, Brazil. Recipient of the Humboldt Postdoctoral Fellowship in Germany. Research Topics: Electronic structure calculations and spin-dependent properties of semiconductor nanostructures. Spin-Lasers. Current Position: Postdoctoral Fellow, University of Regensburg, Germany.
- William Falls 2009-2010. Research Topics: Spin-Polarized Semiconductor Lasers. Recipient of the Presidential Fellowship, University at Buffalo.
- Christian Gothgen 2006-2010, Steady-State Analysis of Semiconductor Spin-Lasers Recipient of student scholarship awards: International School and Conference Spintech IV, June 17-22, 2007, Maui, HI; Spins in Solids, Summer School June 18-23, 2006, Charlottesville, VA. Research Topics: Spin-Polarized Semiconductor Lasers. Ph.D. Thesis Defense: Steady-State Analysis of Semiconductor Spin-Lasers, 7/2010. Deceased
- Erika Dias Cabral 2008-2009 (co-advisor). Recipient of a national fellowship from Brazil fully supporting her stay at the UB as an exchange student from Instituto de Física, Universidade do Estado do Rio de Janeiro, Brazil. Research Topics: Monte Carlo Studies of Impurity Band Effects and Carrier-Mediated Ferromagnetism in Dilute Magnetic Semiconductors. Next/Current Position: Assistant Professor UEZO - Centro Universidade Estadual da Zona Oeste, Rio de Janeiro, Brazil.

Internship Students:

- Thomas Vezin 2018, Spring-Summer, visiting student from Ecole Polytechnique, Paris, France. Research Topics: Spin-Orbit Coupling in Superconducting Junctions and Spintronic Devices.
- Guilhem Boéris, 2011 Spring-Summer, visiting student from Ecole Polytechnique, Paris, France. Silver medal in 2007 International Physics Olympiad. Research Topics: Dynamical Operation of Spin-Lasers. 2011 Research Award from Ecole Polytechnique, Paris for the project on Chirp in Spin-Lasers completed at the University at Buffalo.

Undergraduate Students:

- Geoffrey Fatin 2012-2016. 2016 National Science Foundation Graduate Fellowship, 2016 National Defense Science & Engineering Graduate Fellowship. GPA: 4.00/4.00. Research Topics: Majorana Fermions, Spin-Orbit Coupling, Semiconductor Quantum Dots. Outreach with Heather Gerber a Science Teacher at the Native American Magnet School #19 in Buffalo.
- Timothy Leeney 2015-2017. Research Topics: Spin-Orbit Coupling, Topological Insulators, Magnetic Skyrmions.
- Evan Wasner 2012-2015. Research Topics: Dynamical Operation of Spin-Polarized Semiconductor Lasers. 2014 scholarship, as a exchange student for a premier engineering program in France: Ecole Nationale Supérieure de l'Electronique et de ses Applications.

- Sean Bearden 2012-2015. 2015 National Science Foundation Graduate Fellowship, 2014 Goldwater Scholarship, Wilson Scholarship 2013-2014, 2014-2015, Great Lakes National Scholarship, Society of American Military Engineers Scholarship, Outstanding Senior Award, University at Buffalo, Physics Excellence Award at Summer Research Fellowship for a Ph.D. program at the University of California at San Diego. Research Topics: Spin-Polarized Semiconductor Lasers.
- Aaron Kirby 2011-2013, Research Topics: Spin-Polarized Semiconductor Lasers.
- William Falls 2009, Summer Support: National Science Foundation, Research Experience for Undergraduates, ECCS-054782. Research Topics: Spin Modulation in Semiconductor Lasers.

Postdocs:

- Tiago de Campos, 2018-. Research Topics: Magnetic Quantum Dots, Semiconductor/Superconductor Junctions, Majorana Fermions.
- Tong Zhou, 2017-. Research Topics: Majorana Fermions, Magnetic Textures, Topological Materials, First-Principles Calculations.
- Alex Matos Abiague 2014-2017. Research Topics: Graphene Spintronics, Majorana Fermions, Spin-Dependent Transport, Topological Insulators, Quantum Dots. Next/Current Position: Assistant Professor, Wayne State University, Detroit.
- Benedikt Scharf 2013-2016. 2014 Recipient of Deutsche Forschungsgemeinschaft (DFG) Fellowship. Research Topics: Graphene Spintronics, Topological Insulators, Majorana Fermions, Quantum Dots. Next/Current Position: Postdoc at University of Wuerzburg, Germany.
- Rafal Oszwaldowski 2007-2013. Research Topics: Carrier-Mediated Magnetism in Bulk Semiconductors and Quantum Dots, Spin-Polarized Semiconductor Lasers. Starting in August 2013 Next/Current Position: Assistant Professor, Department of Physics, South Dakota of Mines Technology, Rapid City, SD.
- Karel Vyborny 2011-2013. (co-supervisor with Jong Han). Research Topics: Magnetic Quantum Dots, Spin-Orbit Coupling, Spin-Transfer Torque, Spin-Polarized Semiconductor Lasers. Next/Current Position: Permanent Staff Member, Institute of Physics, Academy of Sciences of the Czech Republic, Prague.
- Karan Aryanpour 2007-2009. (co-supervisor with Jong Han). Research Topics: Spin-Polarized Transport in Inhomogeneous Semiconductors. Next/Current Position: Postdoc, Department of Physics, University of Arizona, Tucson, AZ.
- Ramin Abolfath 2006-2007. Research Topics: Control of Magnetism in Semiconductor Quantum Dots. Next/Current Position: Medical Physicist, Therapeutic Radiology, Yale School of Medicine, New Haven, CT.

LONG-TERM VISITORS:

- Dr. Benedikt Scharf, University of Wuerzburg, Germany, 8/2018. Research Topics: van der Waals Materials, Proximity Effects.
- Dr. Ivor Lončarić, Institute Rudjer Bošković, Zagreb, Croatia, 10/2017-11/2017. Research Topics: First-Principles Calculations, Graphene Spintronics.
- Prof. Xin-Jun Wang Institute of Mathematics and Physics, Central South University of Forestry and Technology, Changsha, China, 5/2016-5/2017, Sabbatical Stay at the University at Buffalo with the Scholarship Award from the Hunan Provincial Department of Education. Research Topics: First-Principles Calculations, van der Waals

Heterostructures.

- Dr. Predrag Lazić, Institute Rudjer Bošković, Zagreb, Croatia, 10/2017-11/2017; Sabbatical Stay at the University at Buffalo, 11/2014-4/2015. Research Topics: First-Principles Calculations, Graphene Spintronics, Electrostatic Gating.
- Dr. Predrag Lazić, Institute Rudjer Bošković, Zagreb, Croatia, Sabbatical Stay at the University at Buffalo, 11/2014-4/2015. Research Topics: First-Principles Calculations, Graphene Spintronics, Electrostatic Gating.
- Dr. Nils C. Gerhardt, Photonics and Terahertz Technology, Ruhr-University Bochum, Bochum, Germany, 8/2014-9/2014, 2/2015. Research Topics: Dynamical Operation of Spin-Lasers and their Experimental Implementation.
- Professor Guilherme Matos Siphai, Instituto de Física de São Carlos, Universidade de São Paulo, São Carlos, Brazil. 5/2018-6/2018; Sabbatical Stay at the University at Buffalo 2/2012-2/2014. Research Topics: Spin Relaxation in Semiconductors and Graphene, Computational Physics, Electronic Structure Calculations.

THESIS COMMITTEE MEMBER:

External, PhD Students:

- Grigory Bednik, Defended 5/2018: "Topological and Superconducting Properties of Weyl and Dirac Metals," Department of Physics, University of Waterloo, ON, Canada.
- Tiago de Campos, Defended 9/2017: "Spin-Orbit Coupling Effects and g -Factors in Zinc-Blende InSb and Wurtzite InAs Nanowires using Realistic Multiband $\mathbf{k} \cdot \mathbf{p}$ Method," São Carlos Institute of Physics, University of São Paulo, Brazil.
- Adari Rama Bhadra Rao, Defended 3/2014: "Spin Injection, Transport and Detection in III-V Semiconductors," Department of Electrical Engineering, Indian Institute of Technology, Bombay, India.
- Julien Rioux, Defended 7/2011: "Full-Band Calculations of Optical Injection in Semiconductors: Investigations of One-Color, Two-Color, and Pump-Probe Scenarios." Department of Physics, University of Toronto, ON, Canada.
- Sankha Mukherjee, Defended 12/2009: "Realization of CoFeB/MgO/CoFeB Magnetic Tunnel Junction Devices Through Materials Analysis, Process Integration, and Circuit Simulation." Microsystems Engineering Department, Rochester Institute of Technology.
- Joseph Ngai, Defended 9/2007: "Scanning Tunneling Spectroscopy on Superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Thin Films: Effects of Ca-Doping, Quasiparticle Spin-Injection, Applied Current, and Magnetic Field." Department of Physics, University of Toronto, ON, Canada.

Internal, PhD Students:

- Jungryeol Seo, Thesis Topic Defense 1/2019: "Broadband Polarization-Sensitive Spectroscopy of Cuprate High T_C Superconductors."
- Mumtaz Murat Arik, Defended 1/2019: "Infrared and Visible Magneto-optical Studies of Large Area Monolayer Transition Metal Dichalcogenides."
- Bilal Tariq, Thesis Topic Defense 1/2019: "Challenges in Spin Qubits for Silicon Quantum Dots."
- Xuechen Zhu, Defended 9/2017: "Numerical Studies of Spin Injection and Scanning

Tunneling Spectroscopy Studies."

- Chenghao Shen, Thesis Topic Defense 8/2017: "Tunneling Anisotropic Magnetoresistance in Magnetically Proximitized Semiconductors."
- Gaofeng Xu, Thesis Topic Defense 5/2016: "Spin Lasers: From Rate Equations to Microscopic Descriptions."
- Jo-Tzu Hung, Defended 6/2015: "Dynamics of Encoded Spin Qubits in Semiconductor Quantum Dots."
- James Pientka, Defended 5/2015: "Magnetic Ordering in Quantum Dots."
- Mehdi Pakmehr, Defended 12/2014: "Probing Spin and Spin-Orbit Coupling Effects in Narrow-Gap Semiconductor Nano-Structures by THz Magneto-Photoresponse Spectroscopy and Magneto-transport Measurements."
- Jeongsu Lee, Defended 8/2014: "Semiconductor Nanostructures in Spintronics: From Spin Lasers to Nodal States."
- Chejin Bae, Defended 8/2013: "A Tunable Terahertz Detector based on Self- Assembled Plasmonic Structure on a GaAs 2-Dimensional Electron Gas."
- Hemachander Subramanian, Defended 8/2012: "Interaction of Magnetism with Atomic Lattice Geometry and Nanoscale Geometric Frustrations."
- Andreas Stier, Defended 7/2011: "Far Infrared Magneto-Optical Studies of Spin Effects and Off Diagonal Conductivity in the Integer Quantum Hall Regime."
- Tariq Ali, Defended 5/2011: "Magneto-Optical Studies of InGaAs Quantum Wells and Devices used for Spintronic Applications."
- Chia-Wei Huang, Defended 8/2010: "Spin Dynamics and Coherence in Semiconductor Nanostructures."
- Christian Gothgen, Defended 7/2010: "Steady-State Analysis of Semiconductor Spin-Lasers."
- Ryan Heary, Defended 5/2009: "Imaginary-Time Description of Strongly Correlated Steady-State Nonequilibrium Transport."
- Gheorghe Acbas, Defended 12/2008: "Infrared Magneto-Optical Studies of Correlated Electron Systems: Faraday and Kerr Measurements in $\text{Ga}_{1-x}\text{Mn}_x\text{As}$, SrRuO_3 and $\text{Pr}_{2-x}\text{C}_x\text{CuO}_4$."

Internal, MS Students:

- Aleh Haramykin, Defended 5/2010: Study of Discrete Nonlinear Schrödinger Equation with Cubic and Quintic Terms Using Maple.

SERVICE TO THE DEPARTMENT:

Department Committees:

Year	Committee (served entire year, unless specified)
2018-2019	Faculty External Recognition Rustgi Memorial Lecture Series Graduate Studies Space Qualifying Examination Administering Qualifying Examination

2017-2018	Faculty External Recognition Rustgi Memorial Lecture Series (Chair) Space Qualifying Examination Administering
2016-2017	Qualifying Examination Faculty External Recognition Seminar (Spring) Rustgi Memorial Lecture Series Space Qualifying Examination Administering
2015-2016	Qualifying Examination Graduate Recruitment Space Qualifying Examination Rustgi Memorial Lecture Series
2014-2015	Advisory (appointed member) Graduate Recruitment Seminar (Spring-Chair) Space Qualifying Examination Rustgi Memorial Lecture Series (Chair)
2013-2014	Advisory (appointed member) Graduate Recruitment Graduate Studies Seminar (Spring) Space Qualifying Examination Rustgi Memorial Lecture Series
2012-2013	Graduate Recruitment Graduate Studies Seminar (Spring) Space Qualifying Examination Rustgi Memorial Lecture Series
2011-2012	Graduate Recruitment Graduate Studies Seminar (Fall) Space Qualifying Examination Rustgi Memorial Lecture Series
2010-2011	Graduate Recruitment Graduate Studies Seminar (Spring) Qualifying Examination Rustgi Memorial Lecture Series
2009-2010	Graduate Recruitment Tenured Condensed Matter Theory Faculty Search (Co-Chair) Colloquium (Fall) Qualifying Examination Rutsgi Memorial Lecture Series
2008-2009	Graduate Recruitment Tenured Condensed Matter Theory Faculty Search (Co-Chair) Faculty External Recognition

	Colloquium (Fall)
	Newsletter
	Qualifying Examination
	Rustgi Memorial Lecture Series
2007-2008	Graduate Recruitment
	Computing
2006-2007	Qualifying Examination
	Graduate Recruitment
	Advisory (appointed member)
	Colloquium (Spring-Chair)
	Computing
2005-2006	Qualifying Examination
	Outreach
	Colloquium (Spring)
	Computing
	Qualifying Examination

- Co-Organizer of the Departmental Retreat on 1/21/2008, dedicated to the effective use of Teaching Assistant positions.
- Designed and implemented new lecture demonstrations for Physics 101 and 102 (College Physics 1, 2).
- Developed new lecture modules on spin transport and magnetism for Physics 102, 513 (College Physics 2, Electrodynamics 1) and on light polarization and lasers for Physics 514 (Electrodynamics 2).
- Co-developed new course Physics 539 (Quantum Theory of Solids).
- Proposed and organized a public presentation (as a part of the Rustgi Memorial Lecture Series) by Dr. Stuart Parkin, IBM Almaden Research Center, "The Spin on Electronics," Buffalo, NY, April 6, 2007.

SERVICE TO THE UNIVERSITY:

- 2011-2012 Member of the Planning Committee to develop and grow a new, internationally recognized, Academic Center and Graduate Degree Program in Materials Science and Engineering (MSE@UB). The resulting proposal has been supported in 2/2012.
- Member of the Center for Spin Effects and Quantum Information in Nanostructures (CSEQuIN).
- New Faculty Orientation Program, Panel Speaker, "Research: Opportunities and Challenges," Hauptmann-Woodward Research Institute, Center of Excellence in Bioinformatics and Life Sciences, Buffalo, NY, 8/25/2009.
- Integrated Nanostructured Systems Workshop (UB 2020 Strategic Strength), presentation "Spintronics: Challenges and Opportunities," Buffalo, NY, 1/11/2008.
- Bio-Harmony, A Life Sciences Breakfast Seminar with UB's industrial partners, presentation "Putting Spin into Electronics," Amherst, NY, 5/15/2008.

SERVICE TO THE COMMUNITY:

- "Lasers and Light." Summer Workshop outreach activity involving middle school students from the Native American Magnet School (PS19) in Buffalo. University at Buffalo, June 2016.

- "Introduction to Optics and Lasers." Summer Workshop outreach activity involving underrepresented students grades 7-12 from Buffalo area. University at Buffalo, NY, June 24-28, 2013.
- Public Lecture "Lasers," (presented by Christian Gothgen) Eggertsville-Snyder Public Library, Snyder, NY, April 18, 2009.
- Public Lecture "Putting Spin Into Electronics-Vision for the Future," opening the Symposium on Magnetic Excitations in Semiconductors, Buffalo, NY, March 6-8, 2008. Attendance of about 400 people, including high-school students.
<http://mcombe.physics.buffalo.edu/magex-festsymp/program.htm>
mcombe.physics.buffalo.edu/magex-festsymp/PublicLecture-Zutic-Abstract.pdf
- Public Lecture "Putting Spin Into Electronics," University of Toronto, ON, Canada, November 3, 2006.

PUBLICATIONS: (most of them available online at <http://arxiv.org/find/cond-mat>)

- h-index 36, Web of Science Thomson Reuters, publication **31**. cited over **6800** times (over 9400 times by Google Scholar).

(1) Refereed Journals:

115. I. Žutić, A. Matos-Abiague, B. Scharf, T. Zhou, J. Shabani, K. Belashchenko, and M. Eschrig, Proximity Effects: From Superconductivity to Topology, *Rev. Mod. Phys.* (invited review), in preparation.
114. C. Shen, T. Leeney, A. Matos-Abiague, B. Scharf, J. E. Han, and I. Žutić, Resonant Tunneling Anisotropic Magnetoresistance: Massive vs Massless States, to be submitted to *Phys. Rev. Lett.*, 6 pages, preprint.
113. T. Vezin, C. Shen, J. E. Han, and I. Žutić, Enhanced Spin-Triplet Pairing in Magnetic Junctions with s-Wave Superconductors, *Phys. Rev. B*, under review, 6 pages, arXiv:1904.10773.
112. N. Mohanta, T. Zhou, J. Xu, J. E. Han, A. D. Kent, J. Shabani, I. Žutić, and A. Matos-Abiague, Current-Controlled Majorana Bound States Using Magnetic Stripes, *Phys. Rev. Applied*, under review, 7 pages, 1903.07834.
111. D. Van Tuan, B. Scharf, I. Žutić, and H. Dery Intervalley Plasmons in Crystals, *Phys. Rev. B*, under review, 8 pages, arXiv:1901.02567.
110. T. Zhou, N. Mohanta, J. E. Han, A. Matos-Abiague, and I. Žutić, Tunable Magnetic Textures in Spin Valves: From Spintronics to Majorana Bound States, *Phys. Rev. B* **99**, 134505 (2019), 8 pages, arXiv:1901.02506.
109. M. Lindemann, G. Xu, T. Pusch, R. Michalzik, M. R. Hofmann, I. Žutić, and N. C. Gerhardt, Ultrafast Spin-Lasers, *Nature* **568**, 212-215 (2019), arXiv:1807.02820. News Highlights: *Phys Org*, *Physics World*, *IEEE Spectrum*, *Photonics Online*,... "Spin Lasers Facilitate Rapid Data Transfer," <https://phys.org/news/2019-04-lasers-rapid.html> "Spin Laser For Ultra-Fast Data Transfer," <https://www.photonicsonline.com/doc/spin-laser-for-ultra-fast-data-transfer-0001> "Ultrafast Spin Laser Could Boost Optical Data Transmission," <https://physicsworld.com/a/ultrafast-spin-laser-could-boost-optical-data-transmission/> "Polarizing the Data Center: Spin Lasers Deliver 240 Gigabits Per Second," <https://spectrum.ieee.org/tech-talk/telecom/internet/polarizing-the-data-center-how-240gigabit-data-transfer-devices-could-spin-up> "Spin Laser For Ultra-Fast Data Transfer," <https://www.photonicsonline.com/doc/spin-laser-for-ultra-fast-data-transfer-0001> "Spin Laser Breaks the Limits of Ultrafast Data

- Transfer," <https://www.smart2zero.com/news/spin-laser-breaks-limits-ultrafast-data-transfer/page/0/1>
108. I. Žutić, A. Matos-Abiague, B. Scharf, T. Zhou, H. Dery, and K. Belashchenko, Naelectronics with Proximitized Materials, *Solid State Electron.* (in press), 5 pages, <https://doi.org/10.1016/j.sse.2019.03.015>.
 107. I. Martnez, P. Högl, C. Gonzalez-Ruano, J. Pedro Cascales, C. Tiusan, Y. Lu, M. Hehn, A. Matos-Abiague, J. Fabian, I. Žutić, F. G. Aliev, Interfacial Spin-Orbit Coupling: New Platform for Superconducting Spintronics, *Phys. Rev. X*, under review, 10 pages, arXiv:1812.08090.
 106. T. Zhu, S. Singh, J. Katoch, H. Wen, K. Belashchenko, I. Žutić, and R. K. Kawakami, Probing Tunneling Spin Injection into Graphene via Bias Dependence, *Phys. Rev. B* **98**, 054412 (2018), 7 pages, arXiv:1806.06526.
 105. B. Scharf, D. Van Tuan, I. Žutić, and H. Dery, Dynamical Screening in Monolayer Transition-Metal Dichalcogenides and its Manifestations in the Exciton Spectrum, *J. Phys. Cond. Matter.* **31**, 203001 (2019) (invited review), 33 pages, arXiv:1801.06217.
 104. P. Zhang, T. Norden, J. M. Pientka, R. Oszwałdowski, A. Najafi, B. Barman, Y. Tsai, W-C. Fan, W-C. Chou, J. E. Han, I. Žutić, B. D. McCombe, A. Petrou, Optical Control of Carrier Wavefunction in Magnetic Quantum Dots, *Phys. Rev. B*, under review, 9 pages, arXiv:1801.05090.
 103. T. Zhou, J. Zhang, H. Jiang, I. Žutić, and Z. Yang, Giant Spin-Valley Polarizations and Multiple Hall Effects in Functionalized Bi Monolayers, *npj Quantum Materials* **3**, 39 (2018), 7 pages, arXiv:1807.10555.
 102. I. Žutić, A. Matos-Abiague, B. Scharf, H. Dery, and K. Belashchenko, Proximitized Materials, *Mater. Today* **22**, 85-107 (2019) (Impact Factor 24.537, invited review), arXiv:1805.07942. Open access, available at <http://authors.elsevier.com/sd/article/S1369702118301111>
 101. I. Žutić and T. Zhou, Tailoring Magnetism in Semiconductors, *Sci. China-Phys. Mech. Astron.* **61**, 067031 (2018).
 100. J. Xu, S. Singh, J. Katoch, G. Wu, T. Zhu, I. Žutić, and R. K. Kawakami, Spin Inversion in Graphene Spin Valves by Gate-Tunable Magnetic Proximity Effect at One-Dimensional Contacts, *Nature Commun.* **9**, 2869 (2018), 6 pages, arXiv:1802.077980.
 99. B. Scharf, G. Xu, A. Matos-Abiague, and I. Žutić, Magnetic Proximity Effects in Transition-Metal Dichalcogenides: Converting Excitons, *Phys. Rev. Lett.* **119**, 129403 (2017), 6 pages, arXiv:1704.07984.
 98. A. Matos-Abiague, J. Shabani, A. D. Kent, G. L. Fatin, B. Scharf, and I. Žutić, Tunable Magnetic Textures: From Majorana Bound States to Braiding, *Solid. State Commun.* **262**, 1 (2017), 6 pages, arXiv:1704.07737.
 97. D. Van Tuan, B. Scharf, I. Žutić, and H. Dery Marrying Excitons and Plasmons in Monolayer Transition-Metal Dichalcogenides, *Phys. Rev. X* **7**, 041040 (2017), 19 pages, arXiv:1704.0198.
 96. P. E. Faria Junior, G. Xu, Y.-F. Chen, G. M. Sipahi, and I. Žutić, Wurtzite Spin Lasers, *Phys. Rev. B* **95**, 115301 (2017), 9 pages, arXiv:1701.07793.
 95. D. Van Tuan, B. Scharf, Z. Wang, J. Shan, K. F. Mak, I. Žutić, and H. Dery, Probing

- Many-Body Interactions in Monolayer Transition-Metal Dichalcogenides, *Phys. Rev. B* **99**, 085301 (2019), 11 pages, arXiv:1606.07101.
94. B. Scharf, T. Frank, M. Gmitra, J. Fabian, I. Žutić, and V. Perebeinos, Excitonic Stark Effect in MoS₂ Monolayers, *Phys. Rev. B* **94**, 245434 (2016), 8 pages, arXiv:1606.030902.
 93. A. Khaetskii and I. Žutić, Killing Auger Recombination in Nanostructures by Carrier Spin Polarization, 4 pages, arXiv:1603.03410, *Appl. Phys. Lett.*, under review.
 92. B. Scharf, A. Matos-Abiague, J. E. Han, E. M. Hankiewicz, and I. Žutić, Tunneling Planar Hall Effect in Topological Insulators: Spin-Valves and Amplifiers, *Phys. Rev. Lett.* **117**, 166806 (2016), 5 pages, arXiv:1601.01009.
 91. G. L. Fatin, A. Matos-Abiague, B. Scharf, and I. Žutić, Wireless Majorana Fermions: From Magnetic Tunability to Braiding, *Phys. Rev. Lett.* **117**, 077002 (2016), 6 pages, arXiv:1510.08182.
 90. I. Žutić and A. Matos-Abiague, Fluid Spintronics: Cause a Stir, *Nature Phys.* **12**, 24-25 (2016).
 89. H. Wen, H. Dery, W. Amamou, T. Zhu, Z. Lin, J. Shi, I. Žutić, I. Krivorotov, Lu J. Sham, R. K. Kawakami, Experimental Demonstration of XOR Operation in Graphene Magnetologic Gates at Room Temperature, *Phys. Rev. Applied* **5**, 044003 (2016), 6 pages, arXiv:1511.08978.
 88. P. Lazić, K. D. Belashchenko, and I. Žutić, Effective Gating and Tunable Magnetic Proximity Effects in Two-Dimensional Heterostructures, *Phys. Rev. B* **93**, 241401(R) (2016), 6 pages, arXiv:1510.05404.
 87. A. Hirohata, H. Sukegawa, H. Yanagihara, I. Žutić, T. Seki, S. Mizukami, and R. Swaminathan, Roadmap for Emerging Magnetic Materials for Spintronic Device Applications, *IEEE Trans. Magn.* **51**, 0800511 (2015), 11 pages, arXiv:1509.08997.
 86. E. Wasner, S. Bearden, J. Lee, and I. Žutić, Digital Operation and Eye Diagrams in Spin-Lasers, *Appl. Phys. Lett.* **107**, 082406 (2015), 4 pages.
 85. P. E. Faria Junior, G. Xu, J. Lee, N. C. Gerhardt, G. M. Sipahi, and I. Žutić, Towards High-Frequency Operation of Spin-Lasers, *Phys. Rev. B* **92**, 075311 (2015), 14 pages, arXiv:1508.04146.
 84. J. M. Pientka, R. Oszwałdowski, A. G. Petukhov, J. E. Han, and I. Žutić, Magnetic Ordering in Quantum Dots: Open vs. Closed Shells, *Phys. Rev. B* **92**, 155402 (2015), 12 pages, arXiv:1509.05068.
 83. B. Barman, R. Oszwałdowski, L. Schweidenback, A. H. Russ, W.-C. Chou, W.-C. Fan, J. R. Murphy, A. N. Cartwright, I. R. Sellers, A. G. Petukhov, I. Žutić, B. D. McCombe and A. Petrou, Time-Resolved Magneto-Photoluminescence Studies of Magnetic Polaron Dynamics in Type-II Quantum Dots, *Phys. Rev. B* **92**, 035430 (2015), 8 pages, arXiv:1510.04376.
 82. P. Högl, A. Matos-Abiague, I. Žutić, and J. Fabian, Magnetoanisotropic Andreev Reflection in Ferromagnet/Superconductor Junctions, *Phys. Rev. Lett.* **115**, 116601 (2015), 5 pages, arXiv:1502.08022.
 81. B. Scharf, A. Matos-Abiague, I. Žutić, and J. Fabian, Probing Topological Transitions in HgTe/CdTe Quantum Wells by Magneto-Optical Measurements, *Phys. Rev. B* **91**,

- 235433 (2015), 13 pages, arXiv:1502.05605.
80. B. Scharf, and I. Žutić, Probing Majorana-Like States in Quantum Dots and Quantum Rings, *Phys. Rev. B* **91**, 144505 (2015), 13 pages, arXiv:1502.05605.
 79. I. Žutić and P. E. Faria Junior, Semiconductor Lasers: Taken for a Spin, *Nature Nanotechnol.* **9**, 750-752 (2014).
 78. J. K. Glanbrenner, I. Žutić, and I. I. Mazin, Theory of Mn-doped II-II-V Semiconductors, *Phys. Rev. B* **90**, 140403(R) (2014), 5 pages, arXiv:1405.2854.
 77. J. Lee, E. Wasner, S. Bearden, and I. Žutić, Spin-Lasers: From Threshold Reduction to Large-Signal Analysis, *Appl. Phys. Lett.* **105**, 042411 (2014), 4 pages.
 76. G. M. Sipahi, I. Žutić, N. Atodiresei, R. K. Kawakami, and P. Lazić, Spin Polarization of Co(0001)/Graphene Junctions from First Principles, *J. Phys. Cond. Matter* **26**, 104204 (2014), 9 pages.
 75. P. Lazić, G. M. Sipahi, R. K. Kawakami, and I. Žutić, Graphene Spintronics: Spin Injection and Proximity Effects from First Principles, *Phys. Rev. B* **90**, 085429 (2014), 15 pages.
 74. J. Lee, K. Vyborny, J. Han, and I. Žutić, Nodal 'Ground State' and Orbital Textures in Quantum Dots, *Phys. Rev. B* **89**, 045315 (2014), 17 pages, arXiv:1311.7645.
 73. B. Scharf, V. Perebeinos, J. Fabian, and I. Žutić, Theory of the Magneto-Optical Conductivity in Monolayer Graphene on Polar Substrates, *Phys. Rev. B* **88**, 125429 (2013), 11 pages, arXiv:1307.4008.
 72. A. Khaetskii, V. N. Golovach, X. Hu, and I. Žutić, A Phonon Laser Using Quantum Dot Spin States, *Phys. Rev. Lett.* **111**, 186601 (2013), 5 pages, arXiv:1306.1786.
 71. M. Eschrig, A. A. Golubov, I. I. Mazin, B. Nadgorny, Y. Tanaka, O. T. Valls, and I. Žutić, Comment on Unified Formalism of Andreev Reflection at a Ferromagnet/Superconductor Interface by T. Y. Chen, Z. Tesanovic, and C. L. Chien, *Phys. Rev. Lett.* **111**, 139703 (2013), 2 pages, arXiv:1301.3511.
 70. P. Stano, J. Fabian, and I. Žutić, Spin-Orbit Coupled Particle in a Spin Bath, *Phys. Rev. B* **87**, 165303 (2013), 17 pages, arXiv:1208.5606.
 69. R. Oszwałdowski, P. Stano, A. G. Petukhov, and I. Žutić, Spin Ordering in Magnetic Quantum Dots: From Core-Halo to Wigner Molecules, *Phys. Rev. B* **86**, 201408(R) (2012), 5 pages, arXiv:1210.6422.
 68. J. M. Pientka, R. Oszwałdowski, A. G. Petukhov, J. E. Han, and I. Žutić, Reentrant Formation of Magnetic Polarons in Quantum Dots, *Phys. Rev. B* **86**, 161403(R) (2012), 5 pages, arXiv:1210.1162.
 67. I. Žutić and J. Lee, Spin Twists in a Transistor, *Science*, **337**, 307-308 (2012).
 66. J. Sinova and I. Žutić, The New Moves of the Spintronics Tango, *Nature Mater.* **11**, 368-371 (2012); invited overview on spintronics.
 65. G. Boeris, J. Lee, K. Vyborny, and I. Žutić, Tailoring Chirp in Spin-Lasers, *Appl. Phys. Lett.* **100**, 121111 (2012), 4 pages, arXiv:1202.4706.
 64. K. Vyborny, J. E. Han, R. Oszwałdowski, I. Žutić, and A. G. Petukhov, Magnetic

- Anisotropies of Quantum Dots, *Phys. Rev. B* **85**, 155312 (2012), 8 pages, arXiv:1202.3145.
63. J. Lee, R. Oszwałdowski, C. Gothgen, and I. Žutić, Mapping Between Quantum Dot and Quantum Well Lasers: From Conventional to Spin Lasers, *Phys. Rev. B* **85**, 045314 (2012), 13 pages, arXiv:1201.1644, **Editors Suggestion and selected for a Viewpoint in Physics.**
 62. B. Scharf, A. Matos-Abiague, I. Žutić, J. Fabian Theory of Thermal Spin-Charge Coupling in Electronic Systems, *Phys. Rev. B* **85**, 085208 (2012), 17 pages, arXiv:1112.1808, **Editors Suggestion.**
 61. H. Dery, H. Wu, B. Ciftcioglu, M. Huang, Y. Song, R. Kawakami, J. Shi, I. Krivorotov, I. Žutić, Lu J. Sham, Spintronic Nanoelectronics based on Magneto-Logic Gates, *IEEE Trans. Electron. Dev.* **59**, 259-262 (2012).
 60. I. Žutić and H. Dery, Taming Spin Currents, *Nature Mater.* **10**, 647-648 (2011).
 59. H. Dery, J. Song, P. Li, and I. Žutić, Silicon Spin Communication, *Appl. Phys. Lett.* **99**, 082502 (2011), 3 pages, arXiv:1107.0359, AIP's Physics News Highlights: <http://www.aip.org/aip/research/PNH-8-29-2011.html>
 58. I. Žutić and J. Cerne, Chameleon Magnets, *Science* **332**, 1040-1041 (2011).
 57. E. Dias Cabral, M. A. Boselli, R. Oszwałdowski, I. Žutić, and I. C. da Cunha Lima, Electrical Control of Magnetic Quantum Wells - Monte Carlo Simulations, *Phys. Rev. B* **84**, 085315 (2011), 7 pages.
 56. R. Oszwałdowski, I. Žutić, and A. G. Petukhov, Magnetism in Closed-Shell Quantum Dots: Emergence of Magnetic Bipolarons, *Phys. Rev. Lett.* **106**, 177201 (2011), 4 pages, arXiv:1106.2346. Highlighted in *Materials Research Society Bulletin* (September 2011) **36**, p. 673)
 55. O. T. Valls, M. Bryan, and I. Žutić, Superconducting Proximity Effects in Metals with a Repulsive Pairing Interaction, *Phys. Rev. B* **82**, 134534 (2010), 11 pages, arXiv:1010.0586.
 54. R. Oszwałdowski, C. Gothgen, and I. Žutić, Theory of Quantum Dot Spin-Lasers, *Phys. Rev. B* **82**, 085316 (2010), 7 pages, arXiv:1009.0324.
 53. J. Lee, W. Falls, R. Oszwałdowski, and I. Žutić, Spin Modulation in Semiconductor Lasers, *Appl. Phys. Lett.* **97**, 041116 (2010), 3 pages, arXiv:1004.0719.
 52. I. R. Sellers, R. Oszwałdowski, V. R. Whiteside, M. Eginligil, A. Petrou, I. Žutić, W. C. Chou, A. G. Petukhov, S. J. Kim, A. N. Cartwright, and B. D. McCombe, Robust Magnetic Polarons in type-II (Zn,Mn)Te/ZnSe Magnetic Quantum Dots, *Phys. Rev. B* **82**, 195320 (2010), 7 pages, arXiv:0912.0138,
 51. I. Žutić and A. G. Petukhov, Shedding Light on Nanomagnets, *Nature Nanotechnol.* **4**, 623-625 (2009).
 50. I. Žutić, Spins Take Sides, *Nature Phys.* **5**, 630-632 (2009).
 49. C. Gothgen, R. Oszwałdowski, A. Petrou, and I. Žutić, Analytical Model of Spin-Polarized Semiconductor Lasers, *Appl. Phys. Lett.* **93**, 042513 (2008), 3 pages, arXiv:0806.4209.

48. R. M. Abolfath, A. G. Petukhov, and I. Žutić, Piezomagnetic Quantum Dots, *Phys. Rev. Lett.* **101**, 207202 (2008), 4 pages, arXiv:0707.2805.
47. J. Fabian and I. Žutić, Optical Orientation in Bipolar Spintronic Devices, *Semicond. Sci. Technol.* **23**, 114005 (2008), 9 pages, arXiv:0811.0324.
46. A. G. Petukhov, I. Žutić, and S. C. Erwin, Thermodynamics of Carrier-Mediated Magnetism in Semiconductors, *Phys. Rev. Lett.* **99**, 257202 (2007), 4 pages, arXiv:0707.2805.
45. R. M. Abolfath, P. Hawrylak, and I. Žutić, Electronic States in Magnetic Quantum Dots, *New J. Phys.* **9**, 353 (2007), 8 pages, arXiv:0710.2567.
44. J. Fabian, A. Mathos-Abiague, C. Ertler, P. Stano, and I. Žutić, Semiconductor Spintronics, *Acta Physica Slovaca* **57**, 565-907 (2007), arXiv:0711.1461. Open access, available at: <http://www.physics.sk/aps/pub.php?y=2007pub=aps-07-04>
43. I. Žutić and J. Fabian, Silicon Twists, *Nature* **447**, 269-270 (2007),
42. R. M. Abolfath, P. Hawrylak, and I. Žutić, Tailoring Magnetism in Quantum Dots, *Phys. Rev. Lett.* **98**, 207203 (2007), 4 pages, cond-mat/0612489.
41. I. Žutić, J. Fabian, and S. C. Erwin, Bipolar Spintronics: From Spin Injection to Spin-Controlled Logic, *J. Phys.: Condens. Matter* **19**, 165219 (2007), 23 pages, arXiv:0706.2190.
40. I. Žutić, Gadolinium Makes Good Spin Contacts, *Nature Mater.* **5**, 771-772 (2006).
39. I. Žutić, J. Fabian, and S. C. Erwin, Spin Injection and Detection in Silicon, *Phys. Rev. Lett.* **97**, 022602 (2006), 4 pages, cond-mat/0412580.
38. T. J. Zega, A. T. Hanbicki, S. C. Erwin, I. Žutić, G. Kioseoglou, C. H. Li, B. T. Jonker, and R. M. Stroud, Determination of Interface Atomic Structure and Its Impact on Spin Transport Using Z-Contrast Microscopy and Density-Functional Theory, *Phys. Rev. Lett.* **96**, 196101 (2006), 4 pages, cond-mat/0605202.
37. I. Žutić, J. Fabian, and S. C. Erwin, Bipolar Spintronics: Fundamentals and Applications, *IBM J. Res. & Dev.* **50**, 121-139 (2006).
36. I. Žutić and M. Fuhrer, A Path to Spin Logic, *Nature Phys.* **1**, 85-86 (2005).
35. W.-K. Tse, J. Fabian, I. Žutić, and S. Das Sarma, Spin Accumulation in the Extrinsic Spin Hall Effect, *Phys. Rev. B* **72**, 214303(R) (2005), 4 pages, cond-mat/0508076.
34. I. Žutić and I. Mazin, Phase-Sensitive Tests of the Pairing State Symmetry in Sr_2RuO_4 , *Phys. Rev. Lett.* **95**, 217004 (2005), 4 pages, cond-mat/0506745.
33. S. Garzon, I. Žutić, and R. A. Webb, Temperature Dependent Asymmetry of the Non-local Spin-Injection Resistance: Evidence for Spin Non-conserving Interface Scattering, *Phys. Rev. Lett.* **94**, 176601 (2005), 4 pages, cond-mat/0504201.
32. J. Fabian and I. Žutić, The Ebers-Moll Model for Magnetic Bipolar Transistors, *Appl. Phys. Lett.* **86** 133506 (2005), 3 pages, cond-mat/0409196.
31. I. Žutić, J. Fabian, and S. Das Sarma, Spintronics: Fundamentals and Applications, *Rev. Mod. Phys.* **76** 323-410 (2004), cond-mat/0405528 (**over 6800 citations**).

30. S. C. Erwin and I. Žutić, Tailoring Ferromagnetic Chalcopyrites, *Nature Mater.* **3**, 410-414 (2004), cond-mat/0401157.
29. J. Fabian and I. Žutić, Spin-Polarized Current Amplification and Spin Injection in Magnetic Bipolar Transistors, *Phys. Rev. B* **69**, 115314 (2004), 13 pages, cond-mat/0311456.
28. J. Fabian, I. Žutić, and S. Das Sarma, Magnetic Bipolar Transistor, *Appl. Phys. Lett.* **84**, 85-87 (2004), cond-mat/0307014.
27. I. Žutić and J. Fabian, Spin-Voltaic Effect and its Implications, *Materials Transactions* **44**, 2062-2065 (2003), cond-mat/0304472.
26. S. Das Sarma, J. Fabian, and I. Žutić, Spin-Polarized Bipolar Transport and its Applications, *J. Supercond.* **16**, 697-705 (2003), cond-mat/0206540.
25. J. Fabian, I. Žutić, and S. Das Sarma, Theory of Spin-Polarized Bipolar Transport in Magnetic *p-n* Junctions, *Phys. Rev. B* **66**, 165301 (2002), 24 pages, cond-mat/0205340.
24. I. Žutić, J. Fabian, and S. Das Sarma, Proposal for All-Electrical Measurement of T_1 in Semiconductors, *Appl. Phys. Lett.* **82**, 221-223 (2003), cond-mat/0205177.
23. I. Žutić, Novel Aspects of Spin-Polarized Transport and Spin Dynamics, *J. Supercond.* **15**, 5-12 (2002), cond-mat/0112368.
22. I. Žutić, J. Fabian, and S. Das Sarma, Spin-Polarized Transport in Inhomogeneous Magnetic Semiconductors: Theory of Magnetic/ Nonmagnetic *p-n* Junctions, *Phys. Rev. Lett.* **88**, 066603 (2002), 4 pages, cond-mat/0106085.
21. S. Das Sarma, J. Fabian, X. D. Hu, and I. Žutić, Spin Electronics and Spin Computation, *Solid State Commun.* **119**, 207-215 (2001), cond-mat/0105247.
20. I. Žutić, J. Fabian, and S. Das Sarma, Proposal for a Spin-Polarized Solar Battery, *Appl. Phys. Lett.* **79**, 1558-1560 (2001), cond-mat/0104416.
19. I. Žutić, J. Fabian, and S. Das Sarma, Spin Injection Through the Depletion Layer: a Theory of Spin-Polarized *p-n* Junctions and Solar Cells, *Phys. Rev. B* **64** 121201(R) (2001), 4 pages, cond-mat/0104146.
18. K. Sengupta, I. Žutić, H.-J. Kwon, V. M. Yakovenko, and S. Das Sarma, Midgap Edge States and Pairing Symmetry of Quasi-One-Dimensional Organic Superconductor, *Phys. Rev. B* **63**, 144531 (2001), 6 pages, cond-mat/0010206.
17. K. Halterman, O. T. Valls, and I. Žutić, Reanalysis of the Magnetic Field Dependence of the Penetration Depth: Observation of the Nonlinear Meissner Effect, *Phys. Rev. B* **63** 180405(R) (2001), 4 pages, cond-mat/0011021.
16. Z. Y. Chen, A. Biswas, I. Žutić, T. Wu, S. B. Ogale, R. L. Greene, and T. Venkatesan, Spin-Polarized Transport Across a $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Interface: Role of Andreev Bound States, *Phys. Rev. B* **63**, 212508 (2001), 4 pages, cond-mat/0007353.
15. K. Halterman, O. T. Valls, and I. Žutić, Angular Dependence of the Penetration Depth in Unconventional Superconductors, *Phys. Rev. B* **63**, 014501 (2001), 14 pages, cond-mat/0007510.

14. S. Das Sarma, J. Fabian, X. D. Hu, and I. Žutić, Theoretical Perspectives on Spintronics and Spin-Polarized Transport, *IEEE Trans. Magn.* **36**, 2821-2826 (2000), cond-mat/0002256.
13. S. Das Sarma, J. Fabian, X. D. Hu, and I. Žutić, Spintronics: Electron Spin Coherence, Entanglement, and Transport, *Superlattice Microst.* **27**, 289-295 (2000), cond-mat/9912040.
12. S. Das Sarma, E. H. Hwang, and I. Žutić, Interface-Charged Impurity Scattering in Semiconductor MOSFET and MODFETs: Temperature-Dependent Resistivity and 2D "Metallic" Behavior, *Superlattice Microst.* **27**, 421-424 (2000), cond-mat/003429.
11. I. Žutić and O. T. Valls, Tunneling Spectroscopy for Ferromagnet/Superconductor Junctions, *Phys. Rev. B* **61**, 1555-1566 (2000), cond-mat/9902080.
10. I. Žutić and S. Das Sarma, Spin-Polarized Transport and Andreev Reflection in Semiconductor/ Superconductor Hybrid Structures, *Phys. Rev. B* **60**, R16322-R16325 (1999), cond-mat/9909002.
9. I. Žutić and O. T. Valls, Spin-Polarized Tunneling in Ferromagnet/Unconventional Superconductor Junctions, *Phys. Rev. B* **60**, 6320-6323 (1999), cond-mat/9808285.
8. A. Bhattacharya, I. Žutić, A. M. Goldman, and O. T. Valls, Comment on Is the Nonlinear Meissner Effect Unobservable? *Phys. Rev. Lett.* **83**, 887 (1999), cond-mat/9812290.
7. A. Bhattacharya, I. Žutić, A. M. Goldman, O. T. Valls, U. Welp, and B. Veal, Angular Dependence of the Nonlinear Magnetic Moment of $\text{YBa}_2\text{Cu}_3\text{O}_{6.95}$ in the Meissner State, *Phys. Rev. Lett.* **82**, 3132-3135 (1999), cond-mat/9812234.
6. A. Bhattacharya, A. M. Goldman, I. Žutić, O. T. Valls, U. Welp, and B. Veal, Investigation of the Symmetry of the Pairing State in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Using the Nonlinear Transverse Magnetic Moment: Experimental Results, *J. Supercond.* **12**, 99-103 (1999).
5. I. Žutić and O. T. Valls, Low Frequency Nonlinear Magnetic Response of an Unconventional Superconductor, *Phys. Rev. B* **58**, 8738-8748 (1998), cond-mat/9806288.
4. I. Žutić and O. T. Valls, Computation of the Nonlinear Magnetic Response of a Three Dimensional Anisotropic Superconductor, *J. Appl. Phys.* **83**, 6804-6806 (1998), cond-mat/9712210.
3. I. Žutić and O. T. Valls, Superconducting-Gap-Node Spectroscopy Using Nonlinear Electrodynamics, *Phys. Rev. B* **56**, 11279-11293 (1997), cond-mat/9706095.
2. I. Žutić and O. T. Valls, Numerically Implemented Perturbation Method for the Nonlinear Magnetic Moment of an Anisotropic Superconductor, *J. Comput. Phys.* **136**, 337-353 (1997), cond-mat/9704240.
1. I. Žutić and O.T. Valls, Nonlinear Transverse Magnetic Moment in Anisotropic Superconductors, *Phys. Rev. B* **54**, 15500-15512 (1996), cond-mat/9606102.

(2) Non-refereed Journals:

2. J. Lee and I. Žutić, Spintronics Stretches its Arms to Lasers (invited article), *SPIE Newsroom*, 10.1117 /2.1201209.004437 (2012), 3 pages, <http://spie.org/x90592.xml?highlight=x2408>

1. I. Žutić, D. Rodinis, Fractal Dimensions or How to Measure in Nature, (in Croatian) *Priroda*, **79**, 12-17 (1989).

(3) Conference Proceedings:

4. B. Barman; Y. Tsai, T. Scrace, J. R. Murphy, A. N. Cartwright, J. M. Pientka, I. Žutić, B. D. McCombe, A. Petrou, I. R. Sellers, R. Oszwaldowski, A. Petukhov, W. C. Fan, W. C. Chou, and C. S. Yang, Conventional versus Unconventional Magnetic Polarons: ZnMnTe/ZnSe and ZnTe/ZnMnSe Quantum Dots, *Proc. SPIE 9167*, 91670L (2014), 7 pages.
3. H. Dery, H. Wu, B. Ciftcioglu, M. Huang, Y. Song, R. K. Kawakami, J. Shi, I. N. Krivorotov, D. A. Telesca, I. Žutić, and Lu J. Sham, Reconfigurable Nanoelectronics Using Graphene Based Spintronic Logic Gates, *Proc. SPIE 8100*, 81000W (2011), arXiv:1101.1497.
2. S. Das Sarma, J. Fabian, X. D. Hu, and I. Žutić, Issues, Concepts and Challenges in Spintronics, The 58th Annual Device Research Conference (IEEE, Piscataway, 2000), p. 95-98, cond-mat/0006369.
1. J. Buan, B. P. Stojković, A. Bhattacharya, I. Žutić, N. Israeloff, A. M. Goldman, D. Grupp, C. C. Huang, and O. T. Valls, Determination of the Pairing State of High- T_C Superconductors Through Measurements of the Transverse Magnetic Moment, Proceedings of the 10th Anniversary HTS Workshop on Physics, Materials and Applications, Houston, Texas, 1996, edited by B. Batlogg, C. W. Chu, W. K. Chu, D. U. Gubser and K. A. Müller, World Scientific (1996), pp. 219-222 (1996).

(4.) Books:

3. J. Fabian, A. Mathos-Abiague, C. Ertler, P. Stano, and I. Žutić, Semiconductor Spintronics, Cambridge University Press, in preparation (textbook including original problems).
2. Spintronics Handbook: Spin Transport and Magnetism, edited by E. Y. Tsymbal and I. Žutić, 2nd edition. 3 Volumes, approx. 2000 pages, 54 chapters (Chapman and Hall/CRC Press), in press.
1. Handbook of Spin Transport and Magnetism, edited by E. Y. Tsymbal and I. Žutić, (Chapman and Hall/CRC Press, New York, 2011), approx. 800 pages, 39 chapters including an overview by A. Fert, 2007 Nobel Laureate in Physics.
<http://www.crcpress.com/product/isbn/9781439803776>

(5.) Contributions to Books:

7. J. Lee, G. Boeris, R. Oszwaldowski, K. Vyborny and C. Gothgen, and I. Žutić, Spin Modulation: Teaching Lasers New Tricks, in *Future Trends in Microelectronics*, edited by S. Luryi, J. Xu, and A. Zaslavsky, (Wiley, Hoboken, 2013), pp. 183-190.
6. I. Žutić, R. Oszwaldowski, C. Gothgen, and J. Lee, Semiconductor Spin-Lasers, in *Handbook of Spin Transport and Magnetism*, edited by E. Y. Tsymbal and I. Žutić, (Chapman and Hall/CRC Press, New York, 2011), pp. 731-746.
5. I. Žutić, J. Fabian, and C. Ertler, Spin-Polarized Transport and Spintronic Devices, chapter in *Comprehensive Semiconductor Science and Technology*, volume 6, edited by P. Bhattacharya, R. Fornari, and H. Kamimura, (Elsevier, Amsterdam, 2011), pp. 615-647.
4. J. Fabian and I. Žutić, The Standard Model of Spin Injection, Lecture notes for the

- 40th IFF Spring School Spintronics–From GMR to Quantum Information, 09 - 20 March 2009 (Forschungszentrums Juelich, 2009), edited by S. Bluegel.
3. I. Žutić and J. Fabian, Towards Semiconductor Spin Logic, chapter in Future Trends in Microelectronics, edited by S. Luryi, J. Xu, and A. Zaslavsky, (Wiley, Hoboken, 2007), pp. 41-50.
 2. I. Žutić and J. Fabian, Bipolar Spintronics, chapter in Concepts in Spin Electronics, edited by S. Maekawa, (Oxford University Press, Oxford, 2006), pp. 43-92.
 1. J. Supercond. **15**, 1-104 (2002), I. Žutić, Guest Editor. (Spintronics 2001: Novel Aspects of Spin-Polarized Transport and Spin Dynamics).

(6.) Other Publications:

1. I. Žutić, Nanoelectronic Device Applications Handbook, J. Nanotech. Eng. Med. **4**, 036501 (2014), 2 pages. Invited and Refereed Book Review.

INVITED PRESENTATIONS:

159. Atomic Monolayers: Towards Spin-Lasers (presented by G. Xu) Ruhr University, Bochum, Germany, April 30, 2019.
158. Bipolar Spintronics: Putting Spin in Photonics, Centre National de la Recherche Scientifique-Thales, Palaiseau, France, April 25, 2019.
157. Atomic Monolayers: From Magnetic Proximity to Tunable Topology, (presented by G. Xu), University of Regensburg, Germany, April 24, 2019.
156. Proximitized Materials, Loughborough University, United Kingdom, April 23, 2019.
155. Proximitized Materials, Ecole Polytechnique, Palaiseau, France, April 11, 2019.
154. Proximitized Materials, Ecole Normale Supérieure, Paris, France, April 8, 2019.
153. Proximitized Materials, Institute of Physics, Zagreb, February 22, 2019.
152. Proximitized Materials, University of Regensburg, Germany, February 5, 2019.
151. Spintronics Beyond Magnetoresistance: From Spin-LEDs to Spin-Lasers, 2017 Workshop on Innovative Nanoscale Devices and Systems, Big Island, HI, November 25-30, 2018.
150. What Can We Do with Dilute Magnetic Semiconductors? Workshop on Dilute Magnetic Semiconductors: Challenges and Opportunities, Kavli Institute for Theoretical Sciences, Beijing, China, November 4-5, 2018.
149. Tunable Magnetic Textures: From Majorana Bound States to Braiding, Asia Pacific Workshop, Highlights of Condensed Matter Physics, Kavli Institute for Theoretical Sciences, Beijing, China, November 1-3, 2018.
148. Proximity Effects in van der Waals Materials, Wayne State University, Detroit, MI, October 18, 2018.
147. Magnetic Proximity Effects in Two-Dimensional Materials, European Materials Research Society, Warsaw, Poland, September 17-20, 2018.
146. Strain-Induced Tunneling Hall Effect in Magnetically Proximitized Graphene, (presented by A. Matos-Abiague), SPIE Optics + Photonics, San Diego, CA, August 19-23, 2018.
145. Ultrafast Spin-Lasers, (presented by G. Xu), SPIE Optics + Photonics, San Diego, CA, August 19-23, 2018.

144. Putting Spin in Electronics, Science First Conference, University of Rijeka, Croatia, July 6, 2018.
143. Proximitized Materials, From Solid State to Biophysics IX, Cavtat, Croatia, June 16-23, 2018.
142. Nanoelectronics with Proximitized Materials, Future Trends in Microelectronics, Sardinia, Italy, June 10-16, 2018.
141. Magnetic Proximity Effects in Two-Dimensional Materials, Peking University, Beijing, China, May 25, 2018.
140. Proximitized Materials, Beijing Normal University, Beijing, China, May 24, 2018.
139. Proximitized Materials, Zhongguancun Forum, Institute of Physics, Chinese Academy of Sciences, Beijing, China, May 23, 2018.
138. Magnetic Proximity Effects in Two-Dimensional Materials, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
137. Novel Excitations with Magnetic Proximity Effects, Reimei/GP-Spin/ICC-IMR International Workshop New Excitations in Spintronics, Sendai, Japan, January 10-14, 2018.
136. Magnetic Proximity Effects and Novel Excitations in 2D Materials, Workshop on Nonequilibrium Phenomena in Quantum Systems, Krvavec, Slovenia, December 17-20, 2017.
135. Magnetic Proximity Effects in Two-Dimensional Materials, 2017 Workshop on Innovative Nanoscale Devices and Systems, Big Island, HI, November 26 - December 1, 2017.
134. Magnetism: Yesterday, Today, and Tomorrow, University of Rijeka, Croatia, October 9, 2017.
133. Spintronic Devices: From Spin-Valves and Spin Lasers to Fault-Tolerant Quantum Computing, Workshop on Spin, Charge and Energy Transport in Novel Materials, Hvar, Croatia, October 1-7, 2017.
132. Spintronics Beyond Magnetoresistance: Putting Spin in Lasers, Gordon Research Conference Spin Dynamics in Nanostructures, Les Diablerets, Switzerland, July 16-21, 2017.
131. Magnetic Proximity Effects: From Graphene and Topological Insulators to Majorana Fermions, University of Zagreb, Croatia, July 3, 2017.
130. Nanomagnets and Proximitized Materials (Plenary Talk), Solid-State Science & Research Conference, Zagreb, Croatia, June 28-30, 2017.
129. Putting Spin in Lasers, IEEE Photonics Society Boston Chapter, Emerging Optical Materials Workshop, MIT Lincoln Laboratory, April 19, 2017.
128. Manipulating Majorana Bound States with Tunable Magnetic Textures, (presented by A. Matos-Abiague), American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
127. Teaching Nanomagnets New Tricks, Brock University, St. Catharines, Canada, February 7, 2017.
126. Wireless Majorana Bound States: From Magnetic Tunability to Braiding, 2016 Workshop on Innovative Nanoscale Devices and Systems, Big Island, HI, December 4-9, 2016.
125. Spin-Lasers: Spintronics Beyond Magnetoresistance, Magnetism and Magnetic Materials, New Orleans, LA, October 31-November 4, 2016.
124. Magnetic Proximity Effects: From Graphene and Topological Insulators to Majorana Fermions, International Workshop on Emergent Relativistic Effects in Condensed Matter, Regensburg, September 27-29, 2016.
123. Tunneling Planar Hall Effect, (presented by A. Matos-Abiague), European Physical Society: Condensed Matter Division, CDM26 Condensed Matter in Gröningen, Netherlands, September 4-9, 2016.

122. Wireless Majorana Fermions: From Magnetic Tunability to Braiding, (presented by G. Fatin), SPIE Optics + Photonics, San Diego, CA, August 28-September 1, 2016.
121. Tunneling Anomalous and Planar Hall Effects, (presented by A. Matos-Abiague), SPIE Optics + Photonics, San Diego, CA, August 28-September 1, 2016.
120. Excitonic Stark Effect and Spintronics in MoS₂ Monolayers, (presented by B. Scharf), SPIE Optics + Photonics, San Diego, CA, August 28-September 1, 2016.
119. Effective Gating and Tunable Magnetic Proximity Effects in Two-Dimensional Heterostructures, Energy Materials Nanotechnology, Dubrovnik, Croatia, May 3-7, 2016.
118. Spin-Orbit Coupling in Hybrid Semiconductor Structures: From Majorana Fermions to Topological Insulators, (presented by B. Scharf), American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
117. Probing Spin-Orbit Coupling in Superconducting Junctions: From Spintronics to Majorana Fermions, Sixth International Symposium on Advanced Nanodevices and Nanotechnology, Waikoloa, HI, November 29-December 4, 2015.
116. Teaching Nanomagnets New Tricks, University of Nebraska - Lincoln, NE, October 21, 2015.
115. Teaching Nanomagnets New Tricks, Michigan State University, MN, October 12, 2015.
114. Spintronics Beyond Magnetoresistance: Putting Spin in Lasers, New Perspectives in Spintronic and Mesoscopic Physics, Kashiwa Japan, June 1-19, 2015.
113. Teaching Nanomagnets New Tricks, New Perspectives in Spintronic and Mesoscopic Physics, Kashiwa Japan, June 1-19, 2015.
112. Probing Topological States and Transitions in Systems of Reduced Dimensionality, (presented by B. Scharf), 17th Brazilian Workshop on Semiconductor Physics, Uberlandia, MG, Brazil, May 3-8, 2015.
111. Putting Spin in Lasers: Spintronics Beyond Magnetoresistance, Kalifa University, Sharjah, UAE, April 21, 2015.
110. Graphene Spintronics: From Spin Injection to Magnetologic Gates, 2014 Workshop on Innovative Nanoscale Devices and Systems, Big Island, HI, December 1-5, 2014.
109. Spintronics: Basic Principles and Devices, Columbia University, NY, September 18, 2014.
108. Teaching Nanomagnets New Tricks, Columbia University, NY, September 16, 2014.
107. Graphene Spintronics: Spin Injection and Proximity Effects from First Principles, SPIE Optics + Photonics, San Diego, CA, August 17-21, 2014.
106. Spin-Lasers: From Optical Gain to High-Frequency Operation. (presented by P. E. Faria Junior), SPIE Optics+Photonics, San Diego, CA, August 17-21, 2014.
105. From Magnetic Polarons to Spin Wigner Molecules in Quantum Dots, 10th International Workshop on Nanomagnetism and Superconductivity Coma-ruga, 2014, June 30 - July 4, 2014
104. Spintronics and Magnetism, (Closing Presentation) 4th International Conference on Superconductivity and Magnetism, Antalya, April 27- May 2, 2014.
103. Putting Spin in Lasers, 4th International Conference on Superconductivity and Magnetism, Antalya, April 27- May 2, 2014.
102. From Magnetic Polarons to Spin Wigner Molecules in Quantum Dots, The 3rd Super-PIRE REIMEI Workshop on Frontiers of Condensed Matter Physics, Beijing, China, March 17-21, 2014.

101. Putting Spin into Lasers, (presented by J. Lee), American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
100. Unconventional Magnetism in Quantum Dots,' Kavli Institute of Theoretical Physics, Santa Barbara, CA, November 8, 2013.
99. Unconventional Magnetic Ordering in Quantum Dots, SPIE Optics+Photonics, San Diego, CA, August 25-29, 2013.
98. Unconventional Magnetic Ordering in Quantum Dots, 9th International Workshop on Nanomagnetism and Superconductivity at the Nanoscale, Coma-ruga, Spain, July 1-5, 2013.
97. Tailoring Magnetism in Quantum Dots, Workshop on Electron Transport in Nanocrystal Assemblies, Fine Theoretical Physics Institute, Minneapolis, MN, June 14-16, 2013.
96. Putting Spin in Lasers," (presented by J. Lee), 16th Brazilian Workshop on Semiconductor Physics, Itirapina, SP, Brazil, May 5-10, 2013.
95. Spintronics: Basic Principles and Devices, 16th Brazilian Workshop on Semiconductor Physics, Itirapina, SP, Brazil, May 5-10, 2013.
94. Unconventional Magnetic Ordering in Quantum Dots, Workshop on Computational Physics in Magnetic Semiconductor Nanostructures, National Chiao Tung University, Hsinchu, Taiwan, March 11-12, 2013.
93. Unconventional Magnetic Ordering in Quantum Dots, University of Washington, Settle, WA, February 19, 2013.
92. Unconventional Magnetic Ordering in Quantum Dots, University of Oklahoma, Norman, OK, February 8, 2013.
91. Putting Spin in Lasers, University of Oklahoma, Norman, OK, February 7, 2013.
90. Spin Lasers and Spin Communication, 2012 Workshop on Innovative Nanoscale Devices and Systems, Big Island, HI, December 3-7, 2012.
89. Tailoring Magnetism in Quantum Dots, University of Minnesota, Minneapolis, MN, October 18, 2012.
88. Semiconductor Spin-Lasers, Workshop on Spin Phenomena in Reduced Dimension, Regensburg, Germany, September 19-21, 2012.
87. Controlling Magnetic Order in Quantum Dots, SPIE Optics+Photonics, San Diego, CA, August 12-16, 2012.
86. Spin Lasers and Spin Communication, Future Trends in Microelectronics, Corsica, France, June 25-29, 2012.
85. Semiconductor Spin-Lasers, IWCE 2012 : 15th International Workshop on Computational Electronics, Madison, WI, May 22-25, 2012.
84. Magnetic Polarons and Bipolarons in Quantum Dots, University of Maryland at College Park, MD, April 12, 2012.
83. Magnetic Polarons and Bipolarons in Quantum Dots, (presented by R. Oszwaldowski), American Physical Society March Meeting, Boston, MA, February 27- March 2, 2012.
82. Magnetic Polarons and Bipolarons in Quantum Dots, University of Regensburg, Germany, January 31, 2012.
81. Tailoring Spin and Magnetism in Quantum Dots, 2nd Advanced Science Research Center International

- Workshop, Tokai, Japan, January 10-13, 2012.
80. Spintronics: Fundamentals and Applications, 7th Scientific Meeting of the Croatian Physical Society, Primošten, Croatia, October 13-16, 2011.
 79. Magnetic Ordering in Quantum Dots, SPIE Optics+Photonics, San Diego, CA, August 21-25, 2011.
 78. Large and Small Signal Analyses of Semiconductor Spin-Lasers, (presented by J. Lee), US-Korea Conference on Science, Technology, and Entrepreneurship, Park City, UT, August 10-14, 2011.
 77. Semiconductor Spin-Lasers, 2011 CMOS Emerging Technologies Workshop, Whistler, BC, Canada, June 15-17, 2011.
 76. Tailoring Magnetism in Semiconductors, 15th Brazilian Workshop on Semiconductor Physics, Juiz de Fora, Brazil, April 10-15, 2011.
 75. Tailoring Spin and Magnetism in Quantum Dots, University of Waterloo, Canada, November 3, 2010.
 74. Tailoring Spin and Magnetism in Quantum Dots, SPIE Optics+Photonics, San Diego, CA, August 1-5, 2010.
 73. Silicon Spintronics? 2010 CMOS Emerging Technologies Workshop, Whistler, BC, Canada, May 19-21, 2010.
 72. Semiconductor Spin-Lasers, 6th Research Institute of Electrical Communications International Workshop on Spintronics, Tohoku University, Sendai, Japan, February, 5-6, 2010.
 71. Tailoring Magnetism in Bulk Semiconductors and Quantum Dots, University of Toronto, ON, Canada, January 20, 2010.
 70. Spintronics: Fundamentals and Applications, 6th Scientific Meeting of the Croatian Physical Society, Primošten, Croatia, October 8-11, 2009.
 69. Spintronics: Fundamentals and Applications, Reconfigurable Systems Workshop 2009 Santa Fe, NM, July 20-22, 2009.
 68. Tailoring Magnetism in Semiconductor Quantum Dots, Spin Phenomena in Reduced Dimensions, Regensburg, Germany, September 24-26, 2008.
 67. Tailoring Magnetism in Bulk Semiconductors and Quantum Dots, Gordon Research Conference on Magnetic Nanostructures, Aussois, France, August 31-September 5, 2008.
 66. Putting Spin Into Electronics, Bio-Harmony, A Life Sciences Seminar, Amherst, 5/15/2008.
 65. Spin Electronics: Challenges and Opportunities, IT Collaboratory Research Symposium, Rochester Institute of Technology, April 14, 2008.
 64. Tailoring Ferromagnetism in Bulk Semiconductors and Quantum Dots, American Physical Society March Meeting, New Orleans, LO, March 10-14, 2008.
 63. Putting Spin Into Electronics-Vision for the Future, Public Lecture at the Symposium on Magnetic Excitations in Semiconductors, Buffalo, NY, March 6-8, 2008.
 62. Tailoring Ferromagnetism in Bulk Semiconductors and Quantum Dots, International Workshop on Spin Currents, Institute of Materials Research, Tohoku University, Sendai, Japan, February 18-19, 2008.
 61. Silicon Spintronics, Advanced Workshop on Frontiers in Electronics (WOFE), Cozumel, Mexico, December 15-19, 2007.
 60. Spin Electronics: Challenges and Opportunities in Semiconductors, University of Rochester, November 28, 2007.

59. Tailoring Ferromagnetism in Bulk Semiconductors and Quantum Dots, Spring Meeting of the German Physical Society, Regensbrug, March 26-31, 2007.
58. Spin-Dependent Bipolar Transport, plenary talk at 47th Sanibel Symposium, St. Simons Island, GA, February 22-27, 2007.
57. Bipolar Transport and Spin Currents in $p-n$ junctions, International Workshop on Spin Currents, Institute of Materials Research, Tohoku University, Sendai, Japan, February 19-20, 2007.
56. Semiconductor Spintronics, Case Western Reserve University, Cleveland, November 6, 2006.
55. Putting Spin into Electronics, University of Toronto, ON, Canada, November 3, 2006.
54. Ferromagnetic Oxide Semiconductors: Challenges and Opportunities, Gordon Research Conference on Magnetic Nanostructures, Oxford University, U.K., September 3-8, 2006.
53. Semiconductor Spintronics: From Spin Injection to Spin-Controlled Logic, Kinken-Wakate 2006, 3rd Materials Science School for Young Scientists, Physics and Applications of Advanced Magnetic Materials, Sendai, Japan, August 26-28, 2006.
52. Magnetic Heterojunctions: From Electrical Spin Detection to Magnetic Bipolar Transistors, Tokyo Institute of Technology, Japan, August 24, 2006.
51. Semiconductor Spintronics: From Spin Injection to Spin-Controlled Logic, Future Trends in Microelectronics: Up the Nano Creek, Crete, Greece, June 26-30, 2006.
50. Research Opportunities in Andreev Reflection Spectroscopy, Department of Energy Workshop on Superconductivity, Washington, D.C., May 8-11, 2006.
49. Spin-Polarized Transport in Semiconductors: Lessons from Superconductivity, University of Florida, Gainesville, April 3, 2006.
48. Semiconductor Spintronics, Center for Nonlinear Studies, Los Alamos National Laboratory, January 23, 2006.
47. Semiconductor Spintronics, National Research Council, Ottawa, Canada, January 19, 2006.
46. Spin-Polarized Transport and Andreev Bound States in Superconducting Junctions, Strongly Correlated Electron Materials: Physics and Nanoengineering, International Conference on Optics & Photonics 2005, San Diego, July 31 - August 4, 2005.
45. Spin-Polarized Transport in Semiconductors: Lessons from Superconductivity, colloquium at Virginia Tech, Blacksburg, March 31, 2005.
44. Spin Injection in Semiconductors, Vanderbilt University, Nashville, March 29, 2005.
43. Spin-Polarized Transport in Semiconductors: Lessons from Superconductivity, colloquium at Vanderbilt University, Nashville, March 28, 2005.
42. Spin-Polarized Transport: From Spin Injection to Andreev Bound States, University of Tennessee, Knoxville, March 15, 2005.
41. Spin-Polarized Transport in Semiconductors: Lessons from Superconductivity, colloquium at University of Nebraska, Lincoln, March 10, 2005.
40. Spin-Polarized Transport in Semiconductors: Lessons from Superconductivity, University of California at Davis, March 7, 2005.
39. Spin Injection in Semiconductors, 43. Internationale Universitätswochen für Theoretische Physik Schladming, Austria, February 26 - March 4, 2005.

38. Spin-Polarized Transport in Semiconductor Junctions: From Superconductors to Magnetic Bipolar Transistors, 43. Internationale Universitätswochen für Theoretische Physik Schladming, Austria, February 26 - March 4, 2005.
37. Spin-Polarized Transport in Semiconductors: Lessons from Superconductivity, colloquium at University of California Riverside, February 3, 2005.
36. Spin-Polarized Transport: Fundamentals and Applications, Oak Ridge National Laboratory, December 13, 2004.
35. Spin-Polarized Transport in Semiconductor Junctions, University of Notre Dame, December 7, 2004.
34. Spintech: Challenges and Opportunities, panel presentation, DARPA workshop, San Francisco, October 29, 2004.
33. Concepts in Spin-Polarized Transport, colloquium at George Mason University, Fairfax, October 4, 2004.
32. Bipolar Spintronics, 4th Generation Light Source Spintronics Satellite Meeting, Rutherford Appleton Laboratories, Oxfordshire, UK, September 14-15, 2004.
31. Bipolar Spintronics: From Magnetic Diodes to Magnetic Bipolar Transistors, American Physical Society March Meeting, Montreal, Canada, March 22-26, 2004.
30. Spintronics: Fundamentals and Applications, colloquium at University of Arizona, Tucson, March 12, 2004.
29. Spintronics: Fundamentals and Applications, University of Virginia, Charlottesville, March 4, 2004.
28. Fundamentals of Spintronics, University of Pittsburgh, February 9, 2004.
27. Spinning Off into the Future - Ultra-Performance Spins in Semiconductors, panel presentation, DARPA SpinS Program Review, Santa Monica, October 17, 2003.
26. Semiconductor Spintronics, SUNY Buffalo, October 7, 2003.
25. Spin-Dependent Transport in Magnetic p-n Junctions, Institute for Materials Research, Sendai, Japan, August 25, 2003.
24. Spin-Dependent Transport in Magnetic p-n Junctions, Institute for Solid State Physics International Summer School for Young Researchers on Quantum Transport in Mesoscopic Scale and Low Dimensions, University of Tokyo, Japan, August 13-21, 2003.
23. Semiconductor Spintronics, International Workshop on Analysis and Numerics for Modeling Semiconductor Devices and Biological Channels, College Park, May 19-23, 2003.
22. Spintronics: Fundamentals and Applications, Institute of Physics, Zagreb, Croatia, April 28, 2003.
21. Spin-Polarized Transport in Electronic Materials, Oregon State University, Corvallis, April 8, 2003.
20. Spintronics: Fundamentals and Applications, colloquium at Oregon State University, Corvallis, April 7, 2003.
19. Spin-Polarized Transport in Inhomogeneous Semiconductors, Foundation Advanced Technology Institute, Tokyo, Japan, March 14, 2003.
18. Bipolar Spintronics, Tohoku University, Sendai, Japan, March 13, 2003.
17. Magnetic Semiconductor Nanodevices, International Workshop on Nanostructured Metallic Materials, Akigu, Japan, March 9-12, 2003.
16. Spin Injection in Electronic Materials, University of Toronto, ON, Canada, February 17, 2003.

15. Spintronics: Fundamentals and Applications, colloquium at McGill University, Montreal, Canada, February 10, 2003.
14. Bipolar Spintronics, Laboratory of Physical Sciences, College Park, January 29, 2003.
13. Bipolar Spintronics, Northeastern University, Boston, November 20, 2002.
12. Spintronics: Fundamentals and Applications, colloquium at Texas A&M University, College Station, September 12, 2002.
11. Spintronics: Fundamentals and Applications, University of Texas, Austin, September 10, 2002.
10. Spintronics and Spin-Polarized Transport, ICTP Trieste, Italy, July 3, 2002.
 9. Spintronics and Spin-Polarized Transport, University of Delaware, Newark, March 28, 2002.
 8. Spintronics and Spin-Polarized Transport, University of Massachusetts, Amherst, March 14, 2002.
 7. Spintronics and Spin-Polarized Transport, NIST, Gaithersburg, March 7, 2002.
6. Semiconductor Spintronic Devices: Theoretical Concepts, colloquium at IBM Almaden, February 8, 2002.
5. Spintronics and Spin-Polarized Transport in Electronic Materials, University of Pittsburgh, January 17, 2002.
4. Magnetic and Spin-Polarized p-n Junctions and Solar Batteries: A Theoretical Proposal for Semiconductor Spintronic Devices, Princeton University, November 5, 2001.
3. Spin-Polarized Transport and Andreev Reflection in Semiconductors, American Physical Society March Meeting, Seattle, WA, March 12-16, 2001.
2. Spin-Polarized Tunneling in Unconventional Superconductors, Johns Hopkins University, Baltimore, April 27, 1999.
1. Spin-Polarized Transport and Andreev Reflection in Ferromagnet/Superconductor Junctions, Naval Research Laboratory, Washington, D.C., April 20, 1999.

CONTRIBUTED ORAL AND POSTER PRESENTATIONS (since 2005):

115. I. Žutić, A. Matos-Abiague, B. Scharf, G. Xu, T. Zhou, P. Lazić, and K. Belashchenko, Magnetic Proximity Effects in 2D Materials, International Winterschool on Electronic Properties of Novel Materials, Kirchberg, Austria, March 9-16, 2019.
114. H. Dery, D. Van Tuan, B. Scharf, and I. Žutić, Shortwave Coulomb Excitations and Local-Field Effects in Monolayer Transition-Metal Dichalcogenides, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
113. W. A. Mayer, S.-C. Yu, K. Wickramasinghe, J. Yuan, N. Mohanta, A. Matos-Abiague, I. Žutić, and J. Shabani, Probing Spin-Orbit Coupling in InAs/Al SQUIDs, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
112. J. Pientka, P. Zhang, T. Norden, A. Najafi, Y. Tsai, B. McCombe, J. E. Han, I. Žutić, A. Petrou, R. M. Oszwaldowski, W.-C. Fan, and W.-C. Chou, Modification of the Heavy Hole Wave-function in Multiply Occupied Magnetic Quantum Dots, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
111. I. Žutić, T. Zhou, N. Mohanta, J. E. Han, and A. Matos-Abiague, From Spintronics to Majorana Bound States, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
110. N. Mohanta, T. Zhou, J. E. Han, A. D. Kent, J. Shabani, I. Žutić, and A. Matos-Abiague, Current-Controlled Majorana Bound States in Hybrid Semiconductor-Superconductor Nanowires Deposited

- on Magnetic Stripe Domains, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
109. G. Xu, T. Zhou, B. Scharf, and I. Žutić, Probing Topology Through Optical Response in Group V Monolayers, Physical Society March Meeting, Boston, MA, March 4-8, 2019.
 108. T. Zhou, J. Zhang, H. Jiang, I. Žutić, and Z. Yang, Multiple Hall Effects in Functionalized Bismuth Monolayers, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
 107. A. Matos-Abiague, N. Mohanta, W. A. Mayer, S.-C. Yu, K. Wickramasinghe, J. Yuan, J. Shabani, and I. Žutić, Spin-Orbit Coupling Effects on the Current-Phase Relation of a DC SQUID, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
 106. T. De Campos, J. Pientka, A. Matos-Abiague, J. E. Han, and I. Žutić, Correlated States in Magnetic Quantum Dots with Multiple Occupancy, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
 105. C. Shen, T. Vezin, J. E. Han, and I. Žutić, Enhanced Triplet Pairing in Magnetic Junctions with s-wave Superconductors, American Physical Society March Meeting, Boston, MA, March 4-8, 2019.
 104. T. Leeney, C. Shen, A. Matos-Abiague, B. Scharf, J. E. Han, and I. Žutić, Proximity-Induced Tunneling Anisotropic Magnetoresistance: Massive vs. Massless States, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 103. T. Zhou, A. Matos-Abiague, J. E. Han, and I. Žutić, Topological Superconductivity with Spin Valves, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 102. Ji. Xu, S. Singh, J. Katoch, G. Wu, T. Zhu, I. Žutić, and R. Kawakami, Spin Inversion in Graphene Spin Valves by Gate-Tunable Magnetic Proximity Effect at One-Dimensional Contacts, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 101. A. Matos-Abiague and I. Žutić, Magnetic and Spin-Orbit Proximity Effects on the Transport Properties of Hybrid Heterostructures, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 100. G. Xu, N. Gerhardt, and I. Žutić, Towards Ultrafast Spin Lasers?, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 99. B. Scharf, G. Xu, A. Matos-Abiague, and I. Žutić, Magnetic Proximity Effects in Transition-Metal Dichalcogenides: Converting Excitons, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 98. J. Seo, M. Murat Arik, A. Mukherjee, C. Zhao, H. Zeng, B. Scharf, I. Žutić, and J. Cerne, Magneto Photoluminescence Measurements in Transition Metal Dichalcogenides on a Magnetic Substrate, YIG, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 97. J. Pientka, P. Zhang, T. Norden, A. Najafi, B. Barman, Y. Tsai, B. McCombe, J. E. Han, I. Žutić, A. Petrou, R. Oszwaldowski, W.-C. Fan, and W.-C. Chou, Modeling of ZnTe Quantum Dots (QDs) Embedded in a ZnMnSe matrix, American Physical Society March Meeting, Los Angeles, CA, March 5-9, 2018.
 96. I. Žutić, A. Matos-Abiague, G. Fatin, and B. Scharf, Manipulating Majorana Bound States with Tunable Magnetic Textures Majorana States in Condensed Matter: Towards Topological Quantum Computation, Mallorca, Spain, May 14-20, 2017.
 95. B. Scharf, Z. Wang, D. Van Tuan, J. Shna, K. Fai Mak, I. Žutić, and H. Dery, Probing Many-Body Interactions in Monolayer Transition-Metal Dichalcogenides, American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
 94. G. Xu, B. Scharf, A. Matos-Abiague, B. Scharf, and I. Žutić, Spin-Orbit Coupling Effects on Excitonic

- States in Transition Metal Dichalcogenides, American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
93. A. Matos-Abiague, B. Scharf, J. E. Han, and I. Žutić, Magnetoanisotropic Tunneling Transport in Topological Insulators, American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
 92. X.-J. Wang, P. Lazić, A. Matos-Abiague, and I. Žutić, First-Principles Studies of Heterostructures with Transition Metal Dichalcogenides, American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
 91. T. Leeney, C. Shen, A. Matos-Abiague, B. Scharf, J. E. Han, and I. Žutić, Tunneling Planar Hall Effect induced by Rashba States, American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
 90. I. Žutić, G. Xu, P. Faria Junior, V. Labinac, and G. Sipahi, Spin Lasers: From Microscopic Description to Rate Equations, American Physical Society March Meeting, New Orleans, LA, March 13-17, 2017.
 89. G. M. Sipahi, T. de Campos, P. E. Faria Junior, M. Gmitra, I. Žutić, and J. Fabian, Spin-Orbit Coupling in InSb Semiconductor Nanowires: Physical Limits for Majorana States, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 88. I. Žutić, P. Lazić and K. D. Belashchenko What Makes Gating Possible in Two Dimensional Heterostructures?, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 87. H. Wen, H. Dery, W. Amamou, T. Zhu, Z. Lin, J. Shi, I. Žutić, I. Krivorotov, Lu Sham, and R. Kawakami, Toward Spin-Based Magneto Logic Gate in Graphene, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 86. P. Högl, A. Matos-Abiague, I. Žutić, and J. Fabian, Interfacial Spin-Orbit Fields in Ferromagnet/Normal Metal (FN) and Ferromagnet/Superconductor (FS) Systems, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 85. G. Fatin, A. Matos-Abiague B. Scharf, and I. Žutić, Wireless Majorana Fermions: From Magnetic Tunability to Braiding, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 84. P. E. Faria Junior, G. Xu, J. Lee, N. C. Gerhardt, G. M. Sipahi, and I. Žutić, Microscopic description of a Spin Laser, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 83. G. Xu, P. E. Faria Junior, G. M. Sipahi, and I. Žutić, Wurtzite Spin-Lasers, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 82. B. Scharf, T. Frank, G. Mitra, J. Fabian, I. Žutić, and V. Perebeinos, Optical Properties of Transition Metal Dichalcogenide Monolayers, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 81. A. Matos-Abiague B. Scharf, J. E. Han, E. Hankiewicz, and I. Žutić, Giant Tunneling Anomalous Hall Conductance in Topological Insulators, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 80. C. Shen, B. Scharf, A. Matos-Abiague, and I. Žutić, Tunneling Seebeck and Anomalous Nernst Effects in Three-Dimensional Topological Insulators, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.
 79. J. Pientka, B. Barman, L. Schweidenback, A. H. Russ, Y. Tsai, J. R. Murphy, A. N. Cartwright, I. Žutić, B. D. McCombe, A. Petrou, A. G. Petukhov, and R. Oszwaldowski, Modeling of Magnetic Polaron Properties in (Zn,Mn)Te Quantum Dots, American Physical Society March Meeting, Baltimore, MD, March 14-18, 2016.

78. I. Žutić, P. Lazić and K. Belashchenko What Makes Gating Possible in Two Dimensional Heterostructures?, Big Ideas in Quantum Materials, LA Jolla, CA, December 14-17, 2015.
77. B. Scharf, A. Matos-Abiague, J. Han, E. Hankiewicz, J. Fabian, and I. Žutić, Spin-Orbit Coupling in Hybrid Semiconductor Structures: From Majorana Fermions and Topological Insulators to Giant Transverse Hall Currents, Big Ideas in Quantum Materials, LA Jolla, CA, December 14-17, 2015.
76. A. Matos-Abiague, P. Högl, I. Žutić, and J. Fabian, Magnetoanisotropic Andreev Reflection in Ferromagnet/Superconductor Junctions, Big Ideas in Quantum Materials, LA Jolla, CA, December 14-17, 2015.
75. S. Bearden, I. Žutić, E. Wasner, and J. Lee, Spin-Lasers: Threshold Reduction, Digital Operation, and Eye Diagrams, Big Ideas in Quantum Materials, LA Jolla, CA, December 14-17, 2015.
74. S. Bearden, E. Wasner, and J. Lee, and I. Žutić, Spin-Lasers: From Threshold Reduction to Large-Signal Analysis, SPIE Optics+Photonics, San Diego, CA, August 9-13, 2015.
73. G. Fatin, A. Matos-Abiague, B. Scharf, and I. Žutić, Majorana Fermions in Quantum Wires with Helical Magnetic Textures, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
72. A. Matos-Abiague, B. Scharf, J. Fabian, and I. Žutić, Probing Topological Transitions in HgTe/CdTe Quantum Wells by Magneto-Optical Measurements, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
71. A. Matos-Abiague, J. Pientka, J. E. Han, and I. Žutić, Driven Magnetic Patterns in Quantum Dots, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
70. J. Pientka, I. Žutić, and J. E. Han, Ground State Properties of Magnetic Quantum Dots with Multiple Occupancies, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
69. T. de Campos, G. M. Sipahi, P. E. Faria Junior, C. Bastos, I. Žutić, M. Gmitra, and J. Fabian, Spin-Orbit Coupling in Semiconductor Nanowires: Physical Limits for Majorana States, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
68. P. E. Faria Junior, G. Xu, J. Lee, N. C. Gerhardt, G. M. Sipahi, and I. Žutić, Towards High-Frequency Operation of Spin-Lasers, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
67. B. Scharf and I. Žutić, Probing Majorana-Like States in Quantum Dots and Quantum Rings, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
66. P. Lazić, K. Belashchenko, and I. Žutić, Tunable Magnetic Proximity Effects in Graphene Junctions, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
65. B. Barman, Y. Tsai, T. Scrace, I. Žutić, B. D. McCombe, A. Petrou, W.-C. Chou, M.-H. Tsou, C.-S. Yang, I. R. Sellers, and R. Oszwaldowski Competition between Applied and Exchange Magnetic Fields in (Zn,Mn)Se/ZnTe Quantum Dots, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
64. P. Högl, A. Matos-Abiague, I. Žutić, and J. Fabian Anisotropic Andreev Reflection in Ferromagnet/s-Wave Superconductors, American Physical Society March Meeting, San Antonio, TX, March 2-6, 2015.
63. I. Žutić, P. Lazić, G. M. Sipahi, and R. Kawakami, Graphene spintronics: Spin Injection and Proximity Effects from First Principles, Magnetism and Magnetic Materials, Honolulu, HI, November 3-7, 2014.
62. T. de Campos, P. E. Faria Junior, G. M. Sipahi, and I. Žutić, Magnetic Field Effects and Nodal Ground States in InP Nanowires, SPIE Optics+Photonics, San Diego, CA, August 17-21, 2014.

61. G. M. Sipahi, I. Žutić, N. Atodiresei, R. K. Kawakami, and P. Lazić, Spin Polarization of Co(0001)/Graphene Junctions from First Principles, SPIE Optics+Photonics, San Diego, CA, August 17-21, 2014.
60. B. Scharf, B. Pekerten, I. Adagideli, and I. Žutić, Probing Majorana-Like States in Quantum Dots and Quantum Rings, SPIE Optics+Photonics, San Diego, CA, August 17-21, 2014.
59. J. Pientka, R. Oszwaldowski, I. Žutić, J. Han, and A. G. Petukhov, Spin Ordering and Fluctuations in Magnetic Quantum Dots, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
58. A. Khaetskii, V. Golovach, X. Hu, and I. Žutić, Proposal for a Phonon Laser Utilizing Quantum-Dot Spin States, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
57. J. Lee, K. Výborný, J. Han, and I. Žutić, Nodal 'Ground States' and Orbital Textures in Semiconductor Quantum Dots, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
56. Tailoring Graphene Spintronics from First Principles, I. Žutić, P. Lazić, G. M. Sipahi, N. Atodiresei, R. Kawakami, K. Belaschenko, and B. Nikolić, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
55. P. E. Faria, Jr., G. M. Sipahi, and I. Žutić, Optical Spin Injection in GaAs Nanowires, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
54. J. R. Murphy, B. Barman, Y. Tsai, T. Scrace, J. M. Pientka, I. Žutić, B. D. McCombe, A. Petrou, A. N. Cartwright, W. C. Chou, M. H. Tsou, C. S. Yang, I. R. Sellers, R. Oszwaldowski, and A. G. Petukhov, Magnetic Polarons in Type-II (Zn,Mn)Se/ZnTe Quantum Dots, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
53. B. Barman, Y. Tsai, T. Scrace, I. Žutić, B. D. McCombe, A. Petrou, W. C. Chou, M. H. Tsou, C. S. Yang, I. R. Sellers, R. Oszwaldowski, and A. G. Petukhov, Magneto-Optical Studies of (Zn,Mn)Se/ZnTe Quantum Dots, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
52. B. Scharf, V. Perebeinos, J. Fabian, and I. Žutić, Magneto-Optical Properties of Graphene on Polar Substrates, American Physical Society March Meeting, Denver, CO, March 3-7, 2014.
51. P. E. Faria, Jr., G. M. Sipahi, and I. Žutić, Optical Generation of Spin Imbalance in Si Nanowires, SPIE Optics+Photonics, San Diego, CA, August 25-29, 2013.
50. P. Lazić, G. Sipahi, R. Kawakami, and I. Žutić, Tailoring Spin Injection and Magnetoresistance in Ferromagnet/Graphene Junctions from First Principles, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.
49. A. Khaetskii, X. Hu, and I. Žutić, A Phonon Laser Using Quantum-Dot Spin States, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.
48. J. Pientka, R. Oszwaldowski, I. Žutić, J. E. Han, and A. G. Petukhov, The Optimization of Magnetic Ordering in Quantum Dots, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.
47. B. Scharf, A. Matos-Abiague, I. Žutić, and J. Fabian Theory of Thermal Spin-Charge Coupling in Electronic Systems, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.
46. I. Žutić, R. Oszwaldowski, P. Stano, and A. G. Petukhov, Spin Wigner Molecules in Quantum Dots, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.
45. J. Lee, K. Výborný, I. Žutić, and J. E. Han, Unconventional Nodal Wavefunctions in Quantum Dots, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.

44. B. Barman, R. Oszwaldowski, L. Schweidenback, A. H. Russ, J. R. Murphy, A. N. Cartwright, I. Žutić, B. D. McCombe, A. Petrou, W.-C. Chou, W.-C. Fan, I. R. Sellers, and A. G. Petukhov, Dynamics of Carrier Populations and Localized Spins During Magnetic-Polaron Formation in Quantum Dots, American Physical Society March Meeting, Baltimore, MD, March 18-22, 2013.
43. J. Pientka, R. Oszwaldowski, J. E. Han, I. Žutić, and A. G. Petukhov, Reentrant Magnetic Polaron Formation in Quantum Dots, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.
42. J. Murphy, L. Schweidenback, B. Barman, R. Oszwaldowski, A. Cartwright, B. McCombe, A. Petrou, I. Žutić, I. Sellers, W. C. Chou, and W.-C. Fan, Photoluminescence Studies of Various Magnetic Phases in (Zn,Mn)Te/ZnSe QDs, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.
41. J. Lee, G. Boeris, K. Vyborny, and I. Žutić, Tailoring Chirp in Spin-Lasers, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.
40. K. Vyborny, J. E. Han, R. R. Oszwaldowski, I. Žutić, and A. G. Petukhov, Magnetic Anisotropies of Quantum Dots, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.
39. I. Žutić, J. Lee, K. Vyborny, J. E. Han, and A. Petukhov, The Interplay of Electronic Properties and Magnetic Anisotropy in Quantum Dots, American Physical Society March Meeting, Boston, MA, February 27-March 2, 2012.
38. R. Oszwaldowski, P. Stano, A. G. Petukhov, and I. Žutić, Magnetic Bipolarons in Quantum Dots, NewSpin 2, College Station, TX, December 12-17, 2011.
37. J. M. Pientka, R. Oszwaldowski, I. Žutić, A. G. Petukhov, and J. E. Han, Quasi-Equilibrium Magnetic Ordering in Quantum Dots, NewSpin 2, College Station, TX, December 12-17, 2011.
36. J. Lee, R. Oszwaldowski, C. Gothgen, G. Boeris, K. Vyborny, and I. Žutić, Semiconductor Spin-Lasers, NewSpin 2, College Station, TX, December 12-17, 2011.
35. K. Vyborny, J. E. Han, R. Oszwaldowski, I. Žutić, and A. G. Petukhov, Magnetic Anisotropies of Quantum Dots, NewSpin 2, College Station, TX, December 12-17, 2011.
34. R. Oszwaldowski, I. Žutić, and A. G. Petukhov, Effects of Anisotropy in Magnetic Quantum Dots, American Physical Society March Meeting, Dallas, TX, March 21-25, 2011.
33. J. Lee, C. Gothgen, R. Oszwaldowski, and I. Žutić, Mapping between Quantum-Dot and Quantum-Well Spin-Lasers, American Physical Society March Meeting, Dallas, TX, March 21-25, 2011.
32. C. Gothgen, J. Lee, R. Oszwaldowski, and I. Žutić, Large and Small Signal Analyses of Spin Modulation in Lasers, American Physical Society March Meeting, Dallas, TX, March 21-25, 2011.
31. B. Barman, A. Russ, L. Schweidenback, J. Murphy, R. Oszwaldowski, I. Sellers, A. Petrou, I. Žutić, B. D. McCombe, A. Cartwright, A. Petukhov, W.-C. Chou, and W. C. Fan, Magneto-Optical Studies of Magnetic Polarons in Type-II (Zn,Mn)Te/ZnSe Quantum Dots, American Physical Society March Meeting, Dallas, TX, March 21-25, 2011.
30. J. Pientka, R. Oszwaldowski, I. Žutić, J. E. Han, and A. G. Petukhov, Non-equilibrium Magnetic Ordering in Quantum Dots, American Physical Society March Meeting, Dallas, TX, March 21-25, 2011.
29. M. Eginligil, I. R. Sellers, R. Oszwaldowski, V. R. Whiteside, A. Petrou, I. Žutić, B. D. McCombe, A. G. Petukhov, and W.-C. Chou, Magnetic Polarons in Type-II (Zn,Mn)Te Columnar Quantum Dots, American Physical Society March Meeting, Portland, OR, March 15-19, 2010.
28. R. Oszwaldowski, A. G. Petukhov, and I. Žutić, Magnetic Polarons in Anisotropic Quantum Dots,

- American Physical Society March Meeting, Portland, OR, March 15-19, 2010.
27. C. Gothgen, R. Oszwaldowski, J. Lee, and I. Žutić, Theory of Quantum-Dot Spin-Polarized Lasers, American Physical Society March Meeting, Portland, OR, March 15-19, 2010.
 26. J. Lee, W. Falls, R. Oszwaldowski, and I. Žutić, Spin Modulation in Semiconductor Lasers, American Physical Society March Meeting, Portland, OR, March 15-19, 2010.
 25. R. Oszwaldowski, A. G. Petukhov, and I. Žutić, Magnetic Polarons in Quantum Dots, The Fifth International School and Conference on Spintronics and Quantum Information Technology SPINTECH V, Kraków, Poland, July 7-11, 2009.
 24. I. R. Sellers, V. R. Whiteside, M. Eginligil, R. Oszwaldowski, I. Žutić, A. Petrou, and B. D. McCombe, Robust Ferromagnetism in Type-II (Zn,Mn)Te Quantum Dots, American Physical Society March Meeting, Pittsburgh, PA, March 16-20, 2009.
 23. C. Gothgen, R. Oszwaldowski, and I. Žutić, Theory of Semiconductor Spin Lasers, American Physical Society March Meeting, Pittsburgh, PA, March 16-20, 2009.
 22. E. Dias Cabral, R. Oszwaldowski, M. A. Boselli, I. Žutić and I. C. da Chuna Lima, Bias-Controlled Ferromagnetism in Quantum Wells with Mn-Delta Doping, American Physical Society March Meeting, Pittsburgh, PA, March 16-20, 2009.
 21. R. Oszwaldowski, A. G. Petukhov, and I. Žutić, Carrier-Mediated Magnetism and Bound Magnetopolarons in Quantum Dots, American Physical Society March Meeting, Pittsburgh, PA, March 16-20, 2009.
 20. A. G. Petukhov, R. M. Abolfath, and I. Žutić, Spin Fluctuations in Magnetic Quantum Dots, American Physical Society March Meeting, Pittsburgh, PA, March 16-20, 2009.
 19. E. Dias Cabral, R. Oszwaldowski, M. A. Boselli, I. Žutić and I. C. da Chuna Lima, Electric Field Control of Ferromagnetism in III-V Quantum Wells with Mn-Delta Doping, The 5th International Conference on Physics and Applications of Spin-Related Phenomena in Semiconductors (PASPS V), Foz do Iguacu, PR, Brazil, August 3-6, 2008.
 18. C. Gothgen, R. Oszwaldowski, A. Petrou, and I. Žutić, Rate Equation Modeling of Semiconductor Spin-Polarized Lasers and Diodes, American Physical Society March Meeting, New Orleans, LO, March 10-14, 2008.
 17. R. Oszwaldowski, C. Gothgen, and I. Žutić, Theory of Spin-Polarized Semiconductor Lasers, American Physical Society March Meeting, New Orleans, LO, March 10-14, 2008.
 16. R. Abolfath, A. G. Petukhov, and I. Žutić, Piezomagnetic Quantum Dots, American Physical Society March Meeting, New Orleans, LO, March 10-14, 2008.
 15. A. G. Petukhov, L. Makinistian, S. C. Erwin, R. Abolfath, and I. Žutić, Thermodynamics of Carrier-Mediated Magnetism in Semiconductors, American Physical Society March Meeting, New Orleans, LO, March 10-14, 2008.
 14. C. Gothgen, R. Oszwaldowski, A. Petrou, and I. Žutić, Theory of Spin-Polarized Semiconductor Lasers, Symposium on Magnetic Excitations in Semiconductors, Buffalo, NY, March 6-8, 2008.
 13. I. Žutić, J. Fabian, and S. C. Erwin, Bipolar Spin-Polarized Transport in Magnetic Heterojunctions, Fourth International School and Conference on Spintronics and Quantum Information Technology (Spintech IV), Maui, HI, June 17-22, 2007.
 12. I. Žutić, A. G. Petukhov, and S. C. Erwin, Reentrant Ferromagnetism and its Stability in Magnetic Semiconductors, American Physical Society March Meeting, Denver, CO, March 5-9, 2007.
 11. I. Žutić, R. M. Abolfath, and P. Hawrylak, Tailoring Magnetism in Quantum Dots, American Physical

Society March Meeting, Denver, CO, March 5-9, 2007.

10. R. M. Abolfath, I. Žutić, and P. Hawrylak, The influence of quantum confinement on magnetism in Quantum Dots American Physical Society March Meeting, Denver, CO, March 5-9, 2007.
9. I. Žutić, R. M. Abolfath, and P. Hawrylak, Tailoring Magnetism in Quantum Dots, 2007 Winter Conference: Spins in Nanostructures, Dynamics, Spectroscopy, Manipulation, and Control, Aspen Center for Physics, Aspen, CO, January 14-20, 2007.
8. I. Žutić, J. Fabian, and S. C. Erwin, Spin Injection and Detection in Silicon, 2007 Winter Conference: Spins in Nanostructures, Dynamics, Spectroscopy, Manipulation, and Control, Aspen Center for Physics, Aspen, CO, January 14-20, 2007.
7. T. J. Zega, A. T. Hanbicki, S. C. Erwin, I. Žutić, G. Kioseoglou, C. H. Li, B. T. Jonker, and R. M. Stroud, Z-contrast-Microscopy and Density-Functional-Theory Determination of the Atomic Structure of the Fe/AlGaAs Interface Between Fe and its Impact on Spin Transport, Microscopy and Microanalysis, Chicago, IL, July 30-August 3, 2006.
6. I. Žutić and I. Mazin, Phase-Sensitive Tests of the Pairing State Symmetry in Sr_2RuO_4 , American Physical Society March Meeting, Baltimore, MD, March 13-17, 2006.
5. I. Žutić, J. Fabian, and S. C. Erwin, Modeling Spintronic Devices, American Physical Society March Meeting, Baltimore, MD, March 13-17, 2006.
4. T. J. Zega, A. T. Hanbicki, S. C. Erwin, I. Žutić, G. Kioseoglou, C. H. Li, B. T. Jonker, and R. M. Stroud, Atomic Structure of the Interface Between Fe and AlGaAs and its Impact on Spin Transport, American Physical Society March Meeting, Baltimore, MD, March 13-17, 2006.
3. S. Garzon, I. Žutić, and R. A. Webb, Temperature Dependent Asymmetry of the Nonlocal Spin Injection Resistance: Evidence for Spin Non-conserving Interface Scattering, American Physical Society March Meeting, Los Angeles, CA, March 21-25, 2005.
2. I. Žutić, S. C. Erwin, and J. Fabian, Spin Injection and Detection in Silicon, American Physical Society March Meeting, Los Angeles, CA, March 21-25, 2005.
1. I. Žutić, S. C. Erwin, First-Principles Study of Alloy Formation at Fe/GaAs Interfaces, American Physical Society March Meeting, Los Angeles, CA, March 21-25, 2005.