SPINTECH VII

Sunday, 28 July 2013

1600 – 1900 *Registration: InterContinental Chicago Hotel Lobby*

Monday, 29 July 2013

0730 – 0845 ***Continental Breakfast: Empire Ballroom***

0745 – 0845 *Registration: Outside Grand Ballroom*

0845 – 0900 **Spintech VII School Opening: Grand Ballroom**

0900 – 1030 Hideo Ohno, Tohoku University (L-1)
Introduction to Spintronics for Integrated Circuit Applications

1030 – 1100 ***Break***

1100 – 1230 Joseph Heremans, Ohio State University (L-2)
The Spin Seebeck Effect: an Experimentalist's Point of View

1230 – 1430 ***Lunch: Empire Ballroom***

1430 – 1600 Peter Schiffer, University of Illinois at Urbana-Champaign (L-3)
Nanomagnetism and Artificial Spin Ice

1600 – 1630 ***Break***

1630 – 1800 Jonathan Lang, Argonne National Laboratory (L-4)
Probing Elemental Magnetism Using Synchrotron Radiation

1800 – 1830 ***Break***

1830 – 2030 ***Welcome Reception: King Arthur Court***

Tuesday, 30 July 2013

0800 – 0900	***Continental Breakfast: Empire Ballroom***
0900 – 1030	Ezekiel Johnston-Halperin, Ohio State University (L-5) *Foundations of Active Organic Spintronics*
1030 – 1100	***Break***
1100 – 1230	Giovanni Vignale, University of Missouri (L-6) *Spin Hall Effect and Spin Hall Drag in Semiconductors*
1230 – 1430	***Lunch: Empire Ballroom***
1430 – 1600	Lily Childress, McGill University (L-7) *Nitrogen Vacancy Centers in Diamond*
1600 – 1630	***Break***
1630 – 1800	Guido Burkard, Universität Konstanz (L-8) *Spin Qubits in Graphene and Carbon Nanotubes*
1800 – 1830	Panel discussion with journal editors (students only)

Wednesday, 31 July 2013

0800 – 0900	***Continental Breakfast: Empire Ballroom***
0900 – 1030	David Vanderbilt, Rutgers University (L-9) *Berry Phases and Curvatures in Computational Electronic Structure Theory*
1030 – 1100	***Break***
1100 – 1230	Raymond Beausoleil, HP Laboratories (L-10) *Large-Scale Integrated Photonics for 21st-Century Information Technologies*
1230	**School Adjourns**

Wednesday, 31 July 2013 (cont.)

1415 – 1430	**Spintech VII Conference Opening: Grand Ballroom**
1430 – 1530	Dan Ralph, Cornell University (INV-1) *Manipulating Magnetic Devices Using Spin Transfer Torque from the Giant Spin Hall Effect*
1530 – 1630	Eiji Saitoh, Tohoku University (INV-2) *Spin Pumping and Spin Seebeck Effects*
1630 – 1645	***Break***
1645 – 1700	Florent Perez, Université Pierre et Marie Curie / CNRS (O-1) *Terahertz Radiation from Spin Waves in Diluted Magnetic Semiconductors*
1700 – 1715	Lin Chen, Tohoku University (O-2) *DC Voltages in (Ga,Mn)As and its Adjacent p-GaAs under Ferromagnetic Resonance*
1715 – 1730	Florent Baboux, Institut des NanoSciences de Paris (O-3) *Giant Spin-Orbit Effects on Collective Spin Excitations*
1730 – 1830	Paul Koenraad, Eindhoven Technical University (INV-3) *Investigation and Manipulation of Individual Transition-Metal Impurities in GaAs*
1830 – 1845	***Break***
1845 – 2030	**Reception and Poster Session 1: Renaissance Ballroom**

Thursday, 1 August 2013

0800 – 0900	***Continental Breakfast: Empire Ballroom***
0900 – 1000	Andrew Dzurak, University of New South Wales (INV-4) *Single-Atom Spin Qubits in Silicon*
1000 – 1015	John Morton, University College London (O-4) *Atomic Clock Transitions in Silicon-Based Spin Qubits*
1015 – 1030	Kamyar Saeedi Ilkhchy, Simon Fraser University (O-5) *Ionized 31P Nuclear Spins in 28Si Show Coherence Times Exceeding Thirty Minutes at Room Temperature*
1030 – 1045	Martino Poggio, Universität Basel (O-6) *Harnessing Nuclear Spin Polarization Fluctuations in a Semiconductor Nanowire*
1045 – 1100	Makoto Kohda, Tohoku University (O-7) *Evidence of Dynamic Nuclear Spin Polarization due to Stern-Gerlach Spin Separation in an InGaAs Quantum Point Contact*
1100 – 1115	***Break***
1115 – 1215	Daniel Loss, Universität Basel (INV-5) *Long-Range Interaction between Spin-Qubits via Ferromagnets*
1215 – 1230	Wolfgang Pfaff, Kavli Institute of Nanoscience Delft (O-8) *Quantum Networks with Spins in Diamond*
1230 – 1245	Viktor Ivády, Linköping University (O-9) *Ab initio Investigation of Divacancy Spins in SiC Polytypes*
1245 – 1300	Hideo Kosaka, Tohoku University (O-10) *Process Tomography of Coherent State Transfer from Light Polarization to Electron Spin Polarization in a Semiconductor*
1300 – 1400	***Lunch: Empire Ballroom***
1400 – 1500	Dan Rugar, IBM Almaden Research Center (INV-6) *Nanoscale Nuclear Magnetic Resonance Imaging: Progress and Challenges*

Thursday, 1 August 2013 (cont.)

1500 – 1600	Amir Yacoby, Harvard University (INV-7) *Entanglement of Coupled Singlet Triplet Spin Qubits*
1600 – 1700	Jörg Wrachtrup, Universität Stuttgart (INV-8) *Quantum Enhanced Precision Measurements Using Single Spins*
1700 – 1715	**Official Conference Photo: Location TBD**
1715 – 1900	**Poster Session 2: Renaissance Ballroom**
1900 – 1930	Shuttles provided to Field Museum for Banquet Front entrance to InterContinental Chicago Hotel
1930 – 2200	***Banquet at Field Museum***

Friday, 2 August 2013

0800 – 0900	***Continental Breakfast: Empire Ballroom***
0900 – 1000	Zhi-Xun Shen, Stanford University (INV-9) *Microwave Microscopy Imaging of Topological Structures in Quantum Materials*
1000 – 1100	Mark Freeman, University of Alberta (INV-10) *Quantitative Magneto-Mechanical Detection and Control of the Barkhausen Effect*
1100 – 1115	***Break***
1115 – 1130	David Christle, University of Chicago (O-11) *Measurement and Control of Single Spins in Diamond above 600 K*
1130 – 1230	Xiaodong Xu, University of Washington (INV-11) *Optical Manipulation and Electrical Control of Spins and Valleys in Atomically-Thin Semiconductors*
1230 – 1245	**Spintech VII Closing Remarks**