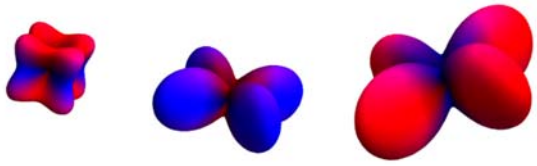
Spin Orbit Coupling School



Thursday, October 22

8:45 – 9:00	**Introduction** Andrea Damascelli University of BC, Canada
9:00 – 10:00	***From the Dirac equations to fine structure in atoms*** Maurits Haverkort MPI, Germany
10:00 – 11:00	***Spin-orbit in solids and at surfaces: experiments Part 1*** Marco Grioni EPFL, Switzerland
11:00 – 11:30	**Coffee Break**
11:30 – 12:30	***Quantum spin hall candidate InAs/GaSb: promise and practice*** Josh Folk University of BC, Canada
12:30 – 13:30	**Lunch**
13:30 – 14:30	***From atoms to solids with Desselhaus and Rashba interactions*** Maurits Haverkort MPI, Germany
14:30 – 15:30	***Spin-orbit in solids and at surfaces: experiments Part 2*** Marco Grioni EPFL, Switzerland
15:30 – 16:00	**Coffee Break**
16:00 – 17:00	**Posters**
17:00	**Reception**

Friday, October 23

9:00 – 10:00	***Anisotropic interactions in correlated electronic systems with strong spin-orbit coupling Part 1*** Natalia Perkins University of Minnesota, USA
10:00 – 10:30	***Leggett modes and the Anderson-Higgs mechanism in superconductors without inversion symmetry*** Nikolaj Bittner MPI, Germany
10:30 – 11:00	***Superconductivity and magnetism in topological half-Heusler semimetals*** Yasuyuki Nakajima University of Maryland, USA

11:00 – 11:30	**Coffee Break**
11:30 – 12:30	***The detection of broken symmetry states and spin-orbital liquids with coherent optical probes*** Peter Armitage Johns Hopkins University, USA
12:30 – 13:30	**Lunch**
13:30 – 14:30	***Anisotropic interactions in correlated electronic systems with strong spin-orbit coupling Part 2*** Natalia Perkins University of Minnesota, USA
14:30 – 15:00	***Na3Ir3O8 - a metal by spin-orbit interaction*** Marc Höppner MPI, Germany
15:00 – 15:30	**Coffee Break**
15:30 – 17:30	**Tour:** AMPEL/Quantum Matter Institute Facilities
17:30	**Bus Departs:** Dinner for Speakers
18:40	**Dinner for Speakers**

Saturday, October 24

9:00 – 10:00	***New physics in topological insulators and superconductors Part 1*** Marcel Franz University of BC, Canada
10:00 – 11:00	***Topological Band and Correlated Insulators*** David Hsieh Caltech, USA
11:00 – 11:30	**Coffee Break**
11:30 – 12:30	***Topological aspects of transport in topological semimetals: observing quantum anomalies*** Sid Parameswaran University of California, USA
12:30 – 13:30	**Lunch**
13:30 – 14:30	***New physics in topological insulators and superconductors Part 2*** Marcel Franz University of BC, Canada
14:30 – 15:30	***Topological Semimetals and Superconductors*** David Hsieh Caltech, USA
15:30 – 16:00	**Coffee Break**

16:00 – 16:30	***Phase diagram and quantum order by disorder in the Kitaev K1-K2 honeycomb magnet*** Ioannis Rousochatzakis University of Minnesota, USA
16:30 – 17:00	***Interacting Majorana fermions*** Armin Rahmani University of BC, Canada

Sunday, October 25

9:00 – 10:00	***From Synthesis to thermodynamics: The interplay of competing crystalline phases and competing electronic phases*** James Analytis University of California, USA
10:00 – 11:00	***Spin-orbital entanglement and spin-triplet pairing in Sr2RuO4*** Andrea Damascelli University of BC, Canada
11:00 – 11:30	**Coffee Break**
11:30 – 12:30	***A hidden magnetic order in Sr2IrO4 system revealed by optical second harmonic generation*** Liuyan Zhao Caltech, USA
12:30 – 13:30	**Lunch**
13:30 – 14:00	***Spin-orbital textures in topological insulators*** Sergey Zhdanovich University of BC, Canada
14:00 – 14:30	***Mapping the phase diagram of 3D Kitaev materials, beta and gamma phase Li2IrO3*** Alejandro Ruiz University of California, USA
14:30 – 15:30	**Concluding remarks**