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| | Wednesday, October 25, 2017 | |
| | <i>Welcome Dinner</i> <i>Hilton Garden Inn Riverhead</i> <i>7:00pm-9:00pm</i> | |
| | Thursday, October 26, 2017 | |
| 9:00am – 9:20am | Opening remarks by Robert Konik, BNL and Gabi Kotliar, BNL/Rutgers | |
| | Session: EXPERIMENTAL SITUATION | |
| 9:20am – 9:40am | Talk: Experimental situation in FeSb ₂ | Cedomir Petrovic, BNL |
| 9:40am – 9:50am | Talk: Thermoelectric Properties of CoAsSb | Xiaoyan Tan, Rutgers |
| 9:50am – 10:00am | Talk: Optical properties of the colossal thermopower material FeSb ₂ | Chris Homes, BNL |
| 10:00am – 10:15am | <i>COFFEE BREAK</i> | |
| 10:15am – 10:25am | Talk: Lattice structure, dynamics and anomalous transport in FeSb ₂ | Igor Zaliznyak, BNL |
| 10:25am - 10:35am | Talk: ARPES on FeSb ₂ and CoSbS: progress report | Nader Zaki, BNL |
| 10:35am – 10:50am | Discussion | |
| | Session: ELECTRONIC STRUCTURE DEVELOPMENTS | |
| 10:50am - 11:05am | Talk: Ground state properties of 3d metals from self-consistent GW approach | Andrey L Kutepov, BNL |
| 11:05am – 11:20am | Talk: Structural predictions for correlated electron materials using functional DMFT | Kristjan Haule, Rutgers |
| 11:20am-11:35am | Talk: Correlated band insulator FeSb ₂ : the role of local correlation beyond GW in the metal-insulator crossover | Sangkook Choi, BNL |
| 11:35am – 11:50am | Talk: GW+G method and its application to FeSb ₂ | Yongxin Yao, Iowa State University |
| 11:50pm - 12:00pm | Discussion | |
| 12:00pm – 1:30pm | <i>LUNCH</i> | |
| | Session: VALIDATION-- Material Design | |
| 1:30pm – 1:45pm | Talk: Structure predictions, polymorphism and strong correlations | Vladan Stevanovic, NHMFL |
| 1:45pm – 1:55pm | Talk: Statistical Analysis of Chances of Material Formation | Ran Adler, Rutgers |
| 1:55pm-2:05pm | Talk: Study for material analogs of FeSb ₂ : material design for thermoelectric materials | Chang Jong Kang, Rutgers |
| 2:05pm – 2:25pm | Talk: In situ studies of Material Synthesis | Meigan Aronson, Texas A&M |
| 2:25pm - 2:35pm | Discussion | |
| | Session: VALIDATION-- THEORETICAL SPECTROSCOPY | |
| 2:35pm-2:50pm | Talk: Nature of the tensor order in the polar metal Cd ₂ Re ₂ O ₇ | Mike Norman, ANL |
| 2:50pm – 3:00pm | Talk: Cd ₂ Re ₂ O ₇ : a spin-orbital coupled Hund's metal | Yilin Wang, BNL |
| 3:00pm-3:15pm | Discussion | |
| 3:15pm-3:30pm | <i>COFFEE BREAK</i> | |
| | Session: VALIDATION | |

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| 3:30pm – 3:40pm | Talk: Orbital-dependent correlations in PuCoGa5 | Walber Hugo De Brito, BNL |
| 3:40pm – 3:50pm | Talk: Signatures of Mottness and Hundness in archetypal correlated metals V2O3 and Sr2RuO4 | Xiaoyu Deng, Rutgers |
| 3:50pm – 4:00pm | Talk: Correlations driven isostructural phase transitions in AMnO3 - perovskites | Lucian Pascut, Rutgers |
| 4:00pm – 4:30pm | Discussion | |
| | Session: NON EQUILIBRIUM – Landau Theories | |
| 4:30pm – 4:45pm | Talk: Floquet Topological Systems | Aditi Mitra, NYU |
| 4:45pm – 5:00pm | Talk: Nonequilibrium control of the electronic structure | Jong Han, U of Buffalo |
| 5:00pm – 5:15pm | Talk: Two-particle response of the Hubbard model with DMFT | Alexei Tselik, BNL |
| 5:15pm – 5:30pm | Discussion | |
| 7:00pm – 9:00pm | <i>DINNER</i> | |
| | Friday, October 27, 2017 | |
| | Session: MOLECULAR DYNAMICS | |
| 9:00am – 9:20am | Talk: Ab initio liquid water: a tale of two liquids | Marivi Fernandez-Serra, SBU |
| 9:20am – 9:35 am | Talk: Gutzwiller molecular dynamics for strongly correlated systems: quantum quench of a Hubbard liquid | Gia-Wei Chern, U of Virginia |
| 9:35am – 9:45am | Discussion | |
| 9:45am – 10:00am | <i>COFFEE BREAK</i> | |
| | Session: Algorithms – Machine Learning | |
| 10:00am – 10:20am | Talk: Hierarchical modeling of effective potential energies using a deep neural network | Kipton Barros, LANL |
| 10:20am – 10:30am | Talk: Application of Novel Kernel Polynomial Method to Quantum Molecular Dynamics | Hidemaro Suwa, U of Tennessee |
| 10:30am – 10:40am | Talk: Towards High-Throughput Computational Materials by Design of d-electron and f-electron Systems: Combining GA/RISB Theory with Machine Learning | Nicola Lanata, NHMFL |
| 10:40am – 10:50am | Talk: Density-Matrix Embedding Theory and Rotationally Invariant Slave Bosons: a Unified Perspective and Finite Temperature Extensions | Tsung Han Lee, Rutgers |
| | Session: Software | |
| 10:50am – 11:10am | Talk: The adaptable I/O System ADIOS | Scott Klasky, ORNL |
| 11:10am – 11:20am | Talk: GPU acceleration of continuous-time quantum Monte-Carlo impurity solver | Patrick Semon, BNL |
| 11:20am – 11:30am | Talk: Code usability and code development support | Huib Van Dam, BNL |
| 11:30am | Meeting with the Advisory Board | |
| | Session: Real Time Solvers | |
| 11:35am – 11:55am | Talk: Quasiparticles in two-band models for correlated materials | Karen Hallberg, CNEA |
| 11:55am – 12:10pm | Talk: The density matrix renormalization group (DMRG) as a solver for cluster perturbation theory (CPT) | Adrian Feiguin, Northeastern |
| 12:10pm – 12:20pm | Talk Interleaved numerical renormalization group as an efficient multiband impurity solver | Katherina Stadler, BNL |
| 12:20pm – 12:30pm | Discussion | |
| 12:30pm | <i>LUNCH</i> | |