Program

Monday October 5, 2015

8:30 – 9:00am Registration

9:00 – 10:00am
Speaker: Lode Pollet
Title: Diagrammatic Monte Carlo simulations of the Ising and phi^4 models

10:00 – 10:40am
Speaker: Hans Gerd Evertz
Title: Representations of Partition Functions and the Loop Algorithm

10:40 – 11:20am Coffee Break

11:20 – 12:00noon
Speaker: Kedar Damle
Title: Cluster algorithms for frustrated Ising models

12:00 – 14:00 Lunch

14:00 – 15:00
Speaker: Dean Lee
Title: Lattice Effective Field Theory and Impurity Lattice Monte Carlo

15:00 – 15:30 Coffee Break

15:30 – 16:10
Speaker: Serdar Elhatisari
Title: Ab initio alpha-alpha scattering using adiabatic projection method

16:10 – 16:50
Speaker: Ulli Wolff
Title: O(N) spin model with Nienhuis action

16:50 – 17:30 Plenary Discussions

Tuesday October 6, 2015

9:00 – 10:00
Speaker: Anders Sandvik
Title: Quantum Spins and Emergent Gauge Fields??

10:00 – 10:40
Speaker: Ribhu Kaul
Title: Quantum Spin Liquids from Quadrupolar Order in SO(N) magnets

10:40 – 11:20 Coffee Break

11:20 – 12:00noon
Speaker: Stefan Wessel
Title: Quantum Monte Carlo Simulations in the Spin-Dimer Basis

12:00 – 14:00 Lunch

14:00 – 15:00am
Speaker: Christof Gattringer
Title: Dual Simulations of Lattice Gauge Theories

15:00 – 15:30 Coffee Break

15:30 – 16:30pm
Speaker: Michael Zaletel
Title: An introduction to tensor networks, with applications to emergent QED3 in a 2DEG

16:30 – 17:30am Plenary Discussions

Wednesday October 7, 2015

9:00 – 10:00am
Speaker: Fakher Assaad
Title: Fermion Monte Carlo

10:00 – 10:40am
Speaker: Lei Wang
Title: Recent progresses on diagrammatic determinantal approach of lattice fermions

10:40 – 11:20am Coffee Break

11:20 – 12:00noon
Speaker: Boris Svistunov
Title: Emergent BCS regime of the two-dimensional fermionic Hubbard model: ground-state phase diagram

12:00 – 14:00 Lunch

14:00 – 15:00pm
Speaker: Snir Gazit
Title: A bosonic topological phase in a paired superfluid

15:00 – 15:30 Coffee Break

15:30 – 16:10pm
Speaker: Falk Bruckmann
Title: Dual variables at work: the two-dimensional O(3) model

16:10 – 16:50pm
Speaker: Tin Sulejmanpasic
Title: Finite density, multi-particle wavefunction and interaction data

16:50 – 17:30 Plenary Discussions

Thursday October 8, 2015

09:00 – 10:00am
Speaker: Owe Philipsen
Title: Diagrammatic approach Strong Coupling Gauge Theories??

10:00 – 10:40am
Speaker: Helvio Vairinhos
Title: Diagrammatic methods for compact lattice QED

10:40 – 11:20am Coffee Break

11:20 – 12:00noon
Speaker: Pavel Buividovich
Title: Diagrammatic Monte-Carlo from Schwinger-Dyson equations:
a unified approach for weak-coupling, strong-coupling and 1/N expansions.

12:00 – 14:00 Lunch

14:00 – 15:00
Speaker: Uwe-Jens Wiese
Title: Real-time simulation of large open quantum spin systems driven by dissipation

15:00 – 15:30 Coffee Break

15:30 – 16:10
Speaker: Thomas Lang
Title: Low level spectroscopy quantum phase transitions in SU(N) symmetric fermionic systems

16:10 – 16:50
Speaker: Emilie Huffman
Title: Solution to sign problems in spin polarized fermion models interacting with quantum spins

16:50 – 17:30 Plenary Discussions

Friday October 9, 2015

09:00 – 10:00am
Speaker: Shailesh Chandrasekharan
Title: Origin of fermion masses with four-fermion condensates and without spontaneous symmetry breaking

10:00 – 10:30am
Speaker: Mario Giuliani
Title: Density of States Method

10:30 – 11:30 Plenary Discussion