Monday Sep. 6

2.15-2.30pm Welcome

**Session 1: Nonequilibrium experiments**

2.30pm – 3pm Monika Aidelsburger (R) Realization of fragmented models in tilted Fermi-Hubbard chains

3pm – 3.30pm Claus Ropers Ultrafast Microscopy and Diffraction of Charge-Density-Wave Materials

30 Minutes coffee break

**Session 2: Quantum Phases**

4pm – 4.30pm Roderich Moessner (R) DTC on a NISQ platform

4.30pm – 5pm Andreas Läuchli Torus Spectroscopy of 2+1D Quantum Critical Points

5pm – 5.30pm Snir Gazit (R) Quantum phases and phase transitions between fractionalized and physical electrons in metals and semi-metals

after 5.30pm Scientific Exchange, Gather.Town, Dinner

(R): remote participation, online talk
**Tue Sep. 7**

**Session 3: Quantum Monte Carlo Methods**

- **9.30am – 10am**  
  Sandro Sorella (R)  
  Recent progress in auxiliary field quantum Monte Carlo

- **10am – 10.30am**  
  Manuel Weber  
  Quantum Monte Carlo simulation of spin-boson models using retarded interactions

30 minutes coffee break

**11am – 11.45am**  
**Poster-Slam I**

**Session 4: Materials related studies**

- **11.45am – 12.15pm**  
  Roser Valenti  
  Playing with Kitaev models and materials

- **12.15pm – 12.45pm**  
  Benjamin Lenz  
  Investigation of a strongly correlated material by quantum cluster techniques: Electronic, magnetic and spectral properties of Sr2IrO4

- **12.45pm – 1.15pm**  
  Jan Lotze/ Maria Daghofer  
  tba

1.15pm – 2.15pm lunch

**Session 5: Poster session I**

2.15pm – 4pm

60 minutes coffee break and scientific exchange (on-site or Gather.Town)

**Session 6: Superconductivity and Stripe Order**

- **5pm-5.30pm**  
  Reinhard Noack  
  Hybrid-space DMRG studies of doped and of frustrated Hubbard models

- **5.30pm-6pm**  
  Alexander Wietek (R)  
  Stripes, spin liquids, and the pseudogap in frustrated and doped Hubbard models at finite temperature

- **6pm-6.30pm**  
  Steve White (R)  
  Phase diagrams of 2D t-J models

after 6.30pm Scientific Exchange, Gather.Town, Dinner
**Wed Sep. 8**

**Session 7: Tensor Networks I**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>9am – 9.30am</td>
<td>Max Bramberger</td>
<td>DMFT studies of correlated materials using a MPS-based impurity solver on the imaginary axis</td>
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<tr>
<td>9.30am – 10am</td>
<td>Sebastian Paeckel</td>
<td>Full quantum dynamics of intramolecular singlet fission using the projected purification</td>
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<tr>
<td>10am – 10.30am</td>
<td>David Jansen</td>
<td>tba (P4)</td>
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30 minutes coffee break

**11am – 11.45am**  **Poster-Slam II**

**Session 8: Tensor Networks II**

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<tr>
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<tbody>
<tr>
<td>11.45am – 12.15pm</td>
<td>Örs Legeza</td>
<td>Tensor network state methods for models with non local interactions</td>
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<tr>
<td>12.15pm – 12.45pm</td>
<td>Philippe Corboz</td>
<td>Tensor network studies of SrCu2(BO3)2 under pressure</td>
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12.45pm-2pm lunch

**Session 9: Poster session II**

2pm – 4pm

60 minutes coffee break and scientific exchange (on-site or Gather.Town)

**Session 10: Quantum Information I**

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<tbody>
<tr>
<td>5pm – 5.30pm</td>
<td>Yujie Liu</td>
<td>Realizing topologically ordered states on a quantum processor</td>
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<tr>
<td>5.30pm – 6pm</td>
<td>Roger Melko (R)</td>
<td>Rydberg arrays and the frontier of in silico quantum many body simulation</td>
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<tr>
<td>6pm – 6.30pm</td>
<td>Ehud Altman (R)</td>
<td>Phases and phase transitions of information flow in quantum circuits</td>
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**Conference dinner**
Thu Sep. 9

Session 11: Quantum Information II

9.30am – 10am     Francesco Parisen Toldin    Entanglement studies of interacting fermionic models

10am – 10.30am    Zi Yang Meng (R)           To hear the shape of quantum drum via "Qiu Ku"

30 minutes coffee break

Session 12: Frustrated Magnetism I

11am – 11.30am    Frédéric Mila             CTMRG and DMRG investigation of chiral transition at commensurate melting of surfaces and of Rydberg chains

11.30am – 12pm    Andreas Honecker         Quantum Monte-Carlo simulations of some highly frustrated magnets

12pm – 12.30pm    Lukas Weber              Quantum Monte Carlo for frustrated trimer magnets

12.30pm – 2pm lunch and scientific exchange

Session 13: Nonequilibrium Theory

2pm – 2.30pm      Stefan Kehrein            Quantum Chaos and Thermalization in the SYK Model

2.30pm – 3pm      Janez Bonca               Thermalization of the spin imbalance in a system with the Poisson distribution of adjacent energy gaps

3pm – 3.30pm      Fabian Essler (R)         Quantum Dynamics in interacting Bose gases

3.30 coffee break

Session 14: Frustrated Magnetism II

4pm – 4.30pm      David Luitz (R)            Low temperature physics of the pyrochlore Heisenberg antiferromagnet

4.30pm – 5pm      Steve Nagler (R)           The 1-D magnet KCuF3: spinons, entanglement and KPZ dynamics

5pm concluding remarks and departure