

## Monday, September 19

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14:00-18:30 Registration  
20:00-21:00 Welcome party

## Tuesday, September 20

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8:50 - 9:00 **V. Zlatic and A. Hewson**  
Opening of the workshop.

9:00 – 10:00 **Bauer E.**, Technical University,  
Vienna, Austria.

From superconductivity towards  
thermoelectricity: Germanium based skutterudites.

10:00 – 11:00 **Kotliar G.**, Rutgers University, Piscataway, NJ, USA.  
First principles calculations of thermoelectric properties of materials: Quo  
Vadis?

11:00 - 11:30 Coffee break

11:30 - 12:30 **Behnia K.**, Ecole Normale Supérieur, Paris, France.  
Nernst effect in Bismuth and graphite beyond the quantum limit.

12:30 - 15:30 Lunch & afternoon break

15:30 - 16:30 Posters and discussion session.

16:30 - 17:30 **Snyder J.**, California Institute of Technology, CA, USA.  
Carrier Pocket Engineering to Improve Thermoelectric Transport in  
Semiconducting PbTe.

17:30 - 18:30 **Delaire O.**, Oak Ridge National Laboratory, Oak Ridge, USA.  
Phonons in thermoelectrics probed with neutron scattering experiments  
and DFT calculations: electron-phonon and phonon-phonon couplings in  
FeSi and PbTe.

18:30 - 20:30 Dinner break

20:30 - 21:30 After dinner talk

**Shastry S.** University of California Santa Cruz, CA, USA.  
Extreme Correlations: or How I learned Not to Worry and Love the Infinite U  
limit.

## Wednesday, September 21

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9:00 – 10:00 **Gelbstein Y.**, Ben-Gurion  
University of the Negev, Beer-Sheva, Israel.  
General Trends in Thermoelectrics.

10:00 – 11:00 **Maple B.**, University of  
California, San Diego, USA.

Experiments on new correlated electron systems.

11:00 - 11:30 Coffee break

11:30 - 12:30 **Rogl P. F.**, University Vienna, Austria.

Clathrate Type I Thermoelectrics:  $\{Ba, Sr\}_8M_x\{Ge, Si\}_{46-x-y}\square_y$ .

12:30 - 13:00 **Mravlje J.**, Ecole Polytechnique, Palaiseau, France.  
Thermopower in strongly correlated  $Sr_2RuO_4$  from first principles.

13:30 - 15:30 Lunch & afternoon break

15:30 - 16:30 Posters and discussion session.

16:30 - 17:30 **Mori M.**, Advanced Science Research Center, JAEA, Tokai,  
Japan.  
Thermopower in correlated electron systems revisited: non-monotonic  
temperature dependence.

17:30 - 18:00 **Pruschke T.**, Goettingen University, Germany.  
Monte-Carlo Approach to Stationary Non-equilibrium of Mesoscopic  
Systems.

18:00 - 18:30 **Hewson A.**, Imperial College, London, UK.  
Fusion of energy scales on the approach to a local quantum critical point.

18:30 - 20:30 Dinner break

20:30 - 21:30 After dinner talk

**Kotliar G.**, Rutgers University, Piscataway, NJ, USA.  
Title to be announced

## Thursday, September 22

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9:00 - 10:00 **Buehler-Paschen S.**, Vienna  
University of Technology, Vienna, Austria.  
Anisotropic Kondo insulators.

10:00 - 11:00 **Fauque C.**, Ecole Normale  
Supérieur, Paris, France. Entropy transport in  
(topological insulator)  $Bi_2Se_3$ .

11:00 - 11:30 Coffee break

11:30 - 12:30 **Tomczak J.**, Rutgers University, Piscataway, NJ, USA.  
Signatures of correlation effects and thermopower in FeSi.

12:30 - 13:00 **Shastry S.**, University of California Santa Cruz, CA, USA.  
Universal features of Thermopower in High  $T_c$  systems and Quantum  
Criticality.

14:30 - 19:30 Workshop trip

## Friday, September 23

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9:00 - 10:00 **Held K.**, Technical University,  
Vienna, Austria.

Enhancement of the  $Na_0.7CoO_2$  thermopower  
due to electronic correlations.

10:00 - 10:30 **Arsenault L-F.**, Université de  
Sherbrooke, Canada.

Optimal doping and entropic origin of giant thermopower in doped Mott  
insulators.

10:30 - 11:00 **Hess C.**, Leibniz Institute, Dresden, Germany.  
Nernst effect of iron pnictide and stripe ordering cuprate superconductors.

11:00 - 11:30 Coffee break

11:30 - 12:00 **Goncalves A. P.**, Instituto Tecnológico e Nuclear, Sacavem,  
Portugal.  
Alternative strategies for thermoelectric materials development.

12:00 - 12:30 **Pernau H-F.**, Fraunhofer Institut, Freiburg, Germany.  
Contributions to physical clarification of high ZT- $Bi_2Te_3/Sb_2Te_3$  nanoscale  
superlattices.

12:30 - 13:00 **Prelovsek P.**, University of Ljubljana, Slovenia.  
Transport in disordered systems of interacting fermions.

13:00 - 15:30 Lunch & afternoon break

15:30 - 16:30 Posters and discussion session

16:30 - 17:30 **Costi T.**, Forschungszentrum Juelich, Germany.  
Charge Kondo effect in molecular quantum dots and  $Pb_{1-x}TeTi_x$  and a  
mechanism for large thermopower.

17:30 - 18:30 **Freericks J.**, Georgetown University, Washington DC, USA.  
Enhanced thermal transport in strongly correlated multilayers.

**18:30 - 19:00 Pernau H-F.**, Fraunhofer Institut, Freiburg, Germany.  
Contributions to physical clarification of high ZT-Bi<sub>2</sub>Te<sub>3</sub>/Sb<sub>2</sub>Te<sub>3</sub> nanoscale superlattices.

**20:00 Workshop Dinner**

## Saturday, September 24



**9:00 - 9:30 Fabrizio M.**, Scuola Normale Superiore, Trieste, Italy.  
Out-of-equilibrium dynamics in correlated systems: a variational approach.

**9:30 - 10:00 Mierzejewski M.**, Institute of Physics, University of Silesia, Poland.  
Nonlinear Current Response of an Isolated System of Interacting Fermions.

**10:00 - 10:30 Oles, A.**, Max-Planck-Institut für Festkörperforschung.  
Spin-Orbital Entangled States in Transition Metal Oxides.

**10:30 - 11:00 Svaika A.**, Institute of the Academy of Sciences, Lviv, Ukraine.  
Many-body dynamics and inelastic scattering in strongly correlated electron systems.

**11:00 - 11:30** Coffee break

**11:30 - 12:00 Bonca J.**, J. Stefan institute and University of Ljubljana, Slovenija.  
Nonequilibrium dynamics of many-body systems driven by a constant electric field.

**12:00 - 12:30 Zotos X.**, University of Crete, Heraklion, Greece.  
Open issues on the transport phenomena of 1D quantum magnets.

**12:30 - 15:30 Lunch & afternoon break**

**15:30 - 16:30** Posters and discussion session

**16:30 - 17:30 Oganessian V.**, City University of New York, USA.  
Tutorial lecture: Magneto-thermoelectric effects - experiments and theories.

**17:30 - 18:00 Rogl, G.**, University Vienna, Austria.  
Severe Plastic Deformation (SPD) using High Pressure Torsion (HPT) a new route to high ZTs?

**18:00 - 18:30 Pfau H.**, MPI for Chemical Physics of Solids, Dresden, Germany.  
Thermoelectric transport across the metamagnetic transition in CeRu<sub>2</sub>Si<sub>2</sub>.

**18:30 - 19:30 Očko M.**, Institute of Physics, Zagreb, Croatia.  
Silicon goes thermoelectric.

## Sunday, September 25



The many-body localization.

**10:30 - 11:00** Coffee break

**11:00 - 11:15 Hewson A.**, Imperial College, London, UK.  
Workshop summary.

**11:15 - 11:30 Zlatić V.**, Institute of Physics, Zagreb, Croatia.  
Closing of the workshop.

### Program Committee

**V. Zlatic**  
Zagreb, Croatia

**A. Hewson**  
London, UK

**P. Prelovsek**  
Ljubljana, Slovenia

**B. Maple**  
San Diego, USA

### Local organizing committee

**V. Zlatic**  
Zagreb, Croatia

**I. Aviani**  
Zagreb, Croatia

