

electronic correlations

• Lectiones: 25+5

Invited Talks: 15+5

DIES MARTIS – Afternoon 28th (15:00–16:10|coffee break|16:40–18:00)

- Philipp Hansmann 15:00
Correlated triangular lattices beyond the local U limit
- Danny Mantadakis 15:30
Doniach phase–diagram trends:
Ab–initio calculations on Ce–based compounds
- Marcel Klett 15:50
Extensions of cluster dynamical mean–field theory
- coffee break 16:10
- Georg Rohringer 16:40
Impact of nonlocal correlations in strongly correlated electrons systems
- Erik van Loon 17:10
Beyond the Hubbard model – Dual Boson perspective
- Tim Wehling 17:30
Non local Coulomb and Electron Phonon interactions in
Correlated Electron Systems

DIES MERCURII – Morning 29th(9:00–10:20|coffee break|11:00–12:30)

- Karsten Held 09:00
Quantum criticality and superconductivity – a D Γ A perspective
- Jan Tomczak 09:30
Realistic many–body theory of Kondo insulators:
Renormalizations and fluctuations in Ce₃Bi₄Pt₃
- Lorenzo del Re 10:00
Progresses in the D Γ A:
From the attractive case to its extensions to broken symmetry phases
- coffee break 10:20
- Thomas Schäfer 11:00
Surely, you're joking, Mr. Feynman?! –
The breakdown of traditional diagrammatic perturbation theory

Patrick Chalupa	11:20
Irreducible Vertex Divergences: Insights from the Anderson Impurity Model	
• Sergio Ciuchi	11:40
Breakdown of perturbation theory in “non-correlated” models	
Demetrio Vilardi	12:10
Functional RG for strongly interacting fermion systems	
<u>lunch and trip to Montefalco afterwards</u>	12:30
<u>DIES IOVIS – Morning 30th (9:30–10:50 coffee break 11:30–12:30)</u>	
• Massimo Capone	09:30
Non-equilibrium dynamics of correlated materials: Towards ultrafast orbital manipulation of functionality	
Angelo Valli	10:00
Interplay between electronic correlations and symmetry breaking in quantum transport	
• Dante Kennes	10:20
Floquet engineering in quantum spin chains and beyond	
<u>coffee break with group picture</u>	10:50
Fabian Kugler	11:30
Multiloop fRG: Exact flow equations from the self-consistent parquet relations	
Cornelia Hille	11:50
Multiloop functional renormalization group for the two-dimensional Hubbard model	
Agnese Tagliavini	12:10
Loop convergence of the response functions	
<u>lunch</u>	12:30
<u>DIES IOVIS – Afternoon 30th (15:00–16:20 coffee break 16:50–18:00)</u>	
• Lilia Boeri	15:00
Surprises of high pressure physics	
Andreas Hausoel	15:30
Local magnetic moments in iron and nickel at ambient and Earth’s core conditions	

- **Mario Cuoco** 15:50
AF semimetals and topological phases combining superconductivity and magnetism
- coffee break 16:20
- **Emanuel Gull** 16:50
Diagrammatic Monte Carlo for real-time propagation
- Tilmann Enss** 17:20
Quantum anomaly and transport in the 2D Fermi gas
- David Jacob** 17:40
Many-body spectral functions from steady state density functional theory

DIES VENERIS – Morning 31st (9:00–10:10| coffee break |10:40–12:30)

- **Luca de' Medici** 09:00
Hund's metals explained
- Daniel Springer** 09:30
Osates on the verge of a Hund's–Mott transition:
The different fates of NaOsO₃ and LiOsO₃
- Philipp Eck** 09:50
Towards Topological Quasi-Freestanding Stanene via Substrate Engineering
- coffee break 10:10
- Domenico Di Sante** 10:40
Unconventional Superconductivity in Compensated Dirac Semimetals
- Adriano Amaricci** 11:00
Strong correlation effects in topological insulators
- **Ronny Thomale** 11:20
Topoelectrical circuits
- concluding remarks 11:50

lunch

shuttle to Trevi station
