

# International Workshop on Strongly correlated transition metal Compounds

Venue: Kardinal Schulte Haus, Bergisch Gladbach near Cologne

## Sunday 3<sup>rd</sup> August

**19:00** Dinner and informal welcome

## Monday 4<sup>th</sup> August

- 9:00- 9:30 P. Wölfle, Karlsruhe University, FRG  
*Incoherent metal phase of doped Mott insulators: pseudogaps and non-Fermi liquid behaviour*
- 9:30-10:00 N.P. Ong, Princeton University, USA  
*The vortex Nernst effect and  $H_{c2}$  in cuprates and new results on layered cobaltates*
- 10:00-10:30 O. Gunnarsson, MPI Stuttgart, FRG  
*The Ioffe-Regel criterion and saturation of electrical resistivity in metals*
- 10:30.11:00** Tea/Coffee
- 11:00-11:30 Y. Tokura, University of Tokyo, Japan  
*Spin chirality and Berry phase phenomena in pyrochlore-type Mo-oxides*
- 11:30-12:00 J.B. Goodenough, University of Texas, USA  
*Comments on the Mott-Hubbard Transition*
- 13:00** Lunch
- 15:00-15:30 St. Wirth, MPI Dresden, FRG  
*Properties and tunneling studies of the electron doped manganite  $\text{La}_{0.7}\text{Ce}_{0.3}\text{MnO}_3$*
- 15:30-16:00 P. Attfield, University of Cambridge, UK  
*Charge ordering in transition metal oxides- from magnetite to manganites*
- 16:00-16:30** Tea/Coffee
- 16:30-17:00 S-W. Cheong, Rutgers University, USA  
*Preformed, nanoscale ferromagnetism in manganites*
- 17:00-17:30 G.A. Sawatzky, University of British Columbia, Canada  
*Possible pathways to new classes of ferromagnetic and half-metallic ferromagnetic materials*
- 19:00** Dinner

## Tuesday 5<sup>th</sup> August

- 9:00- 9:30 H.R. Ott, ETH Zürich, Switzerland  
*Spin mediated energy transport in 1D spin systems*
- 9:30-10:00 T. Kopp, Augsburg University, FRG  
*Towards an understanding of spin excitations in low-dimensional quantum antiferromagnets*
- 10:00-10:30 T. Giamarchi, University of Geneva, Switzerland  
*Deconfinement in coupled Luttinger liquids*
- 10:30.11:00** Tea/Coffee
- 11:00-11:30 C. Broholm, John Hopkins University and NIST, USA  
*Spin-1/2 chains in uniform and staggered fields*
- 11:30-12:00 I. Affleck, Boston University, USA  
*Flux pinning and non-Hermitian Luttinger liquids*
- 13:00** Lunch
- 15:00-15:30 F. Mila, University of Lausanne, Switzerland  
*Magnetization plateau in frustrated quantum magnets*

- 15:30-16:00 A. Loidl, Augsburg University, FRG  
*Frustration effects in spinel-type compounds*
- 16:00-16:30 Tea/Coffee**
- 16:30-17:00 M. Sigrist, ETH Zürich, Switzerland  
*Ruthenates: unconventional superconductivity and magnetism*
- 17:00-17:30 Y. Maeno, Kyoto University, Japan  
*Anisotropic specific heat of Sr<sub>2</sub>RuO<sub>4</sub>*
- 18:30 Dinner**
- 20:00- Poster session with draft beer

### Wednesday 6<sup>th</sup> August

- 9:00- 9:30 J. Tranquada, BNL, USA  
*Metallic charge stripes and superconductivity in cuprates*
- 9:30-10:00 W. Hanke, Würzburg University, FRG  
*From antiferromagnetism to d-wave superconductivity: the role of bosonic spin and charge excitations*
- 10:00-10:30 M. Greiter, Karlsruhe University  
*Possible theory of high-T<sub>c</sub> superconductivity: the chirality liquid and pairing via chiral confinement*
- 10:30-11:00 Tea/Coffee**
- 11:00-11:30 J. Fink, IFW Dresden, FRG  
*Recent results on the electronic structure of high-T<sub>c</sub> superconductors from angle-resolved photoemission*
- 11:30-12:00 B. Keimer, MPI Stuttgart, FRG  
*Spin/orbital dynamics in transition metal oxides*
- 13:00 Lunch**
- 15:00-15:30 V.I. Anisimov, Ekaterinburg, Russia  
*Spin, orbital and charge ordering from LDA+U calculations*
- 15:30-16:00 M.V. Mostovoy, University of Groningen, Netherlands  
*Orbital interactions and frustration in Jahn-Teller materials*
- 16:00-16:30 Tea/Coffee**
- 16:30-17:00 G. Khaliullin, MPI Stuttgart, FRG  
*Quantum orbital physics in titanates and vanadites*
- 17:00-17:30 P. Horsch, MPI Stuttgart, FRG  
*Optical conductivity and orbital degeneracy in manganites and vanadites*
- 18:00-18:30 Dinner**
- 18:45 Departure for guided tour through the old part of Cologne

### Thursday 7<sup>th</sup>

- 9:00- 9:30 A. Simon, MPI Stuttgart, FRG  
*Superconductivity and giant magneto resistance in layered rare earth halides*
- 9:30-10:00 M. Takano, Kyoto University, Japan  
*Ligand holes: SrFeO<sub>3</sub> and (Ca,Na)<sub>2</sub>CuO<sub>2</sub>Cl<sub>2</sub>*
- 10:00-10:30 Tea/Coffee**
- 10:30-11:00 A. Maignan, CNRS Caen, France  
*Unusual electronic and magnetic properties in cobaltites with low dimensionality*
- 11:00-11:30 R.J. Cava, Princeton University, USA  
*Non-perovskite ruthenates and layered cobalt oxides- new materials with unexpected properties*
- 12:00 Lunch**