

## Poster Session

Symposium on „Functional Transition Metal Compounds & Multiferroics“  
Cologne 26.09.05 – 28.09.05

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*A'AVO(PO<sub>4</sub>)<sub>2</sub>: The first examples of frustrated ferromagnetic square lattice systems (A', A = Pb, Ba, Sr, Zn)*

**E. Kaul**

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*Crystal structure and magnetic properties of La<sub>2-x</sub>Sr<sub>x</sub>CoO<sub>4</sub>*

**M. Cwik<sup>1</sup>, M. Benomar<sup>1</sup>, M. Reuther<sup>1</sup>, M. Haider<sup>1</sup>, A. Hoser<sup>2</sup>, Y. Sidis<sup>3</sup>, E. Rose<sup>1</sup>, D. Maier<sup>1</sup>, J. Baier<sup>1</sup>, T. Lorenz<sup>1</sup> and M. Braden<sup>1</sup>**

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*Role of the structural distortions in the phase diagrams of RE<sub>1-x</sub>A<sub>x</sub>TiO<sub>3</sub> (A=Sr, Ca)*

**H. Roth, A. Komarek, M. Cwik, W. D. Stein, N. Schnittner, A. El-Filali, M. Kriener, T. Zabel, A. Freimuth, M. Braden, T. Lorenz**

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*Multiferroic Crystals: Crystal Growth and Characterization*

**S.Jodlauk<sup>1</sup>, M.Lindner<sup>1</sup>, P.Becker<sup>1</sup>, L.Bohatý<sup>1</sup>, H.Kierspel<sup>2</sup>, Th.Lorenz<sup>2</sup>**

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*Halides of the outer and inner transition metals / Complex oxides of the 3d transition metals*

**G. Meyer, A. Möller,**

Anorganic Chemistry, University of Cologne

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*Growing thin films with control of oxygen stoichiometry*

**R. Sutarto<sup>1</sup>, C.-F. Chang<sup>1</sup>, H. Ott<sup>1</sup>, S.J. Heise<sup>1</sup>, Z. Hu<sup>1</sup>, H.H. Hsieh<sup>2</sup>, H.-J. Lin<sup>3</sup>, C.T. Chen<sup>3</sup>, and L. H. Tjeng<sup>1</sup>**

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*Controlling orbital occupation and spin orientation in transition metal oxide thin films*

**M. W. Haverkort<sup>1</sup>, S.I. Csiszar<sup>2</sup>, Z. Hu<sup>1</sup>, T. Burnus<sup>1</sup>, A. Tanaka<sup>3</sup>, S. Altieri<sup>1,4</sup>,  
H.H. Hsieh<sup>5</sup>, H.-J. Lin<sup>6</sup>, C.T. Chen<sup>6</sup>, T. Hibma<sup>2</sup>, and L.H. Tjeng<sup>1</sup>**

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*Pressure-induced metal-insulator transition in  $RNiO_3$*

**R. Lengsdorf<sup>1</sup>, J. A. Alonso<sup>2</sup>, D. I. Khomskii<sup>1</sup>, M. J. Martinez-Lope<sup>2</sup>, H.  
Micklitz<sup>1</sup>, and M. Abd-Elmeguid<sup>1</sup>**

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*Transport Properties of low-dimensional Cuprates, Vanadates, and Nickelates*

**S. Barilo<sup>2</sup>, K. Berggold<sup>1</sup>, E. Brück<sup>3</sup>, S. Cheong<sup>5</sup>, A. Freimuth<sup>1</sup>, M. Hofmann<sup>1</sup>,  
M. Isobe<sup>6</sup>, N. Johansen, K. Kordonis<sup>1</sup>, M. Kriener<sup>1</sup>, T. Lorenz<sup>1</sup>, Y. Ueda<sup>6</sup>,  
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*Thermoelectric Properties of doped  $LaCoO_3$*

**M. Kriener, K. Berggold, J. Baier, C. Zobel, A. Reichl, H. Hartmann,  
O. Heyer, M. Reuther, H. Kierspel, A. Freimuth, T. Lorenz**

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*Thermodynamic Properties and Metamagnetism of Ca<sub>2-x</sub>Sr<sub>x</sub>RuO<sub>4</sub>*

**J. Baier<sup>1</sup>, A. M. Braden<sup>1</sup>, Freimuth<sup>1</sup>, O. Friedt<sup>1</sup>, M. Kriener<sup>1</sup>, T. Lorenz<sup>1</sup>, Y. Maeno<sup>3</sup>, S. Nakatsuji<sup>3</sup>, A. Revcolevschi<sup>2</sup>, O. Schumann<sup>1</sup>, P. Steffens<sup>1</sup>, T. Zabel<sup>1</sup>**

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*Thermal Properties of Multiferroic Materials*

**N. Aliouane<sup>5</sup>, D. Argyriou<sup>5</sup>, J. Baier<sup>1</sup>, A. M. Balbashov<sup>4</sup>, K. Berggold<sup>1</sup>, A. Freimuth<sup>1</sup>, J. Hemberger<sup>1&6</sup>, V. Yu. Ivanov<sup>3</sup>, T. Lorenz<sup>1</sup>, D. Meier<sup>1</sup>, A. A. Mukhin<sup>3</sup>, A. Vasiliev<sup>2</sup>**

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*Optical spectroscopy on highly correlated transition metal compounds I*

**E. Benkiser<sup>1&2</sup>, A. Gößling<sup>1</sup>, M. Grüninger<sup>2</sup>, C. Hilgers<sup>1&2</sup>, T. Möller<sup>1</sup>, R. Rückamp<sup>1</sup>,**

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*Optical spectroscopy on highly correlated transition metal compounds II*

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*Magnetism in 214-Ruthenates*

**G. André<sup>2</sup>, J. Baier<sup>1</sup>, M. Braden<sup>1</sup>, O. Friedt<sup>1</sup>, A. Gukasov<sup>2</sup>, M. Kriener<sup>1</sup>, J. N. Kikugawa<sup>6</sup>, Kulda<sup>4</sup>, T. Lorenz<sup>1</sup>, Y. Maeno<sup>5</sup>, S. Nakatsuji<sup>5</sup>, P.G. Radaelli<sup>3</sup>, O. Schumann<sup>1</sup>, Y. Sidis<sup>2</sup>, P. Steffens<sup>1</sup>, T. Zabel<sup>1</sup>**

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*Magnetic excitations in single-layer manganates*

**D. Senff<sup>1</sup>, F. Krüger<sup>1</sup>, S. Scheidl<sup>1</sup>, O. Schumann<sup>1</sup>, M. Benomar<sup>1</sup>, P. Reutler<sup>5</sup>,  
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*Unusual spin state and spin-state transitions in cobaltates*

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*Phase transitions and orbital occupation in partially filled  $t_{2g}$  systems*

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*Resonant soft x-ray diffraction*

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*Spectroscopy from stripe order in  $La_{1.8}Sr_{0.2}NiO_4$*

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*L Dynamical Correlations in Ferromagnetic Transition Metal Compounds: a view from LDA+DMFT*

**L. Craco, E. Müller-Hartmann**

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*Low dimensional quantum spin systems with ring exchange and spin-phonon coupling*

**C. Aits, E. Bartel, U. Löw, A. Schadschneider**

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*Almost integrable models*

**P. Jung, A. Rosch**

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*Exact ground states of quantum spin systems in  $d > 1$  dimensions*

**M.A. Ahrens, A. Schadschneider, J. Zittartz**

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*Disorder and quantum fluctuation in effective field theories of highly correlated materials*

**T. Nattermann, B. Rosenow, S. Scheidl**

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*Field Tuned Quantum Critical Points in Antiferromagnetic Metals*

**I. Fischer, R. Helmes, A. Rosch**

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*Chiral Helices in a Metal: MnSi*

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*Ab initio and Cluster Model Calculations for Strongly Correlated Oxide (1)*

**Hua Wu<sup>2</sup>, M.W. Haverkort<sup>2</sup>, T. Burnus<sup>2</sup>, D. Khomskii<sup>2</sup>, E. Müller-Hartmann<sup>1</sup>, and L.H. Tjeng<sup>2</sup>**

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*Ab initio and Cluster Model Calculations for Strongly Correlated Oxide (2)*

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