

**9th Annual Retreat of the SFB/TR 49, Ysenburger Hof, Langenselbold,
September 24 – 25, 2015**

Programme

Thursday, September 24, 2015

| 1. Ultracold Gases & Cold Ion Crystals | | |
|---|------------------------|---|
| 10:00 (5) | Michael Lang | <i>Welcome</i> |
| 10:05 (13+7) | Walter Hofstetter (A3) | <i>Interacting topological states in synthetic gauge fields</i> |
| 10:25 (13+7) | Axel Pelster (A5) | <i>Tuning anisotropic properties in ultra-cold bosonic gases</i> |
| 10:45 (13+7) | Herwig Ott (A9) | <i>Dynamically probing ultracold lattice gases via Rydberg molecules</i> |
| 11:05 (25) | Coffee Break | |
| 11:30 (13+7) | F. Schmidt-Kaler (A10) | <i>Rydberg ions for long-range interactions and mode-design in ion crystals</i> |
| 11:50 (13+7) | Artur Widera (A12) | <i>Dynamics of single impurities with and without a bath</i> |

| 2. Quantum Spin Systems (I) | | |
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| 12:10 (13+7) | Bernd Wolf (B1) | <i>Thermodynamic investigations on $\text{Cs}_2\text{CuCl}_{4-x}\text{Br}_x$</i> |
| 12:30 (13+7) | Sebastian Eggert (B3) | <i>Quantum phase transitions in periodically driven systems</i> |
| 12:50 (70) | Lunch | |

| 3. Quantum Spin Systems (II) | | |
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| 14:00 (12+8) | Cornelius Krellner (B4) | <i>Single crystal growth of tunable quantum spin systems</i> |
| 14:20 (12+8) | Martin Baumgarten (B5) | <i>Designing afm coupled biradical networks</i> |

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| 14:40 (50) | Poster Flash Presentations | |
| 15:30 (30) | Coffee Break | |

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| 16:00 (90) | Mentoring (1) | |
| 17:30 (30) | Break | |

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| 18:00 (75) | Mitgliederversammlung |
| 19:15 (60) | Dinner |

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| 20:15 | Poster Session |
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Friday, September 25, 2015

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| XX:XX – 09:00 | Breakfast |
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| 3. Magnon Gases | | |
| 09:00 (13+7) | Oleksandr Serha (A7) | <i>Magnon supercurrents in thermal gradients</i> |
| 09:20 (13+7) | Peter Kopietz (A8) | <i>Recent progress with magnon condensation and dilute bosons</i> |

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| 4. Charge-Transfer Salts | | |
| 09:40 (18+7) | Daniel Guterding (B2/B13) | <i>Microscopic modelling of exotic properties in frustrated systems: triangular and kagome lattices</i> |
| 10:05 (13+7) | Elena Gati (B6) | <i>Critical properties and role of electron-phonon coupling at the Mott transition in κ-(BEDT-TTF)₂Cu[N(CN)₂]Cl</i> |
| 10:25 (20) | Coffee Break | |
| 10:45 (13+7) | Alisa Chernenkaya (B8) | <i>Temperature-dependent NEXAFS in TTF-TCNQ single crystals</i> |
| 11:05 (13+7) | Michael Huth (B9) | <i>Evidences for parallels between organic charge transfer systems close to a Mott transition and granular metals</i> |
| 11:25 (13+7) | Benedikt Hartmann (B11) | <i>Mott Criticality in κ-(BEDT-TTF)₂Cu[N(CN)₂]Br: Utilizing Glass-Like Structural Ordering</i> |
| 11:45 (13+7) | Hans-Joachim Elmers (B12) | <i>Local density of states in the superconductor κ-(BEDT-TTF)₂Cu[N(CN)₂]Br</i> |
| 12:05 (5) | Michael Lang | <i>Concluding remarks</i> |
| 12:10 (65) | Lunch | |

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| 13:15 (45) | Mentoring (2) |
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