



SFB TRR 21: 10th International Workshop

Control of quantum correlations in tailored matter: Common perspectives of mesoscopic systems and quantum gases

03 – 06 April 2017
Villa Vigoni, Loveno di Menaggio, Italy

- Programme -

Arrival: Monday, 03 April 2017 (before dinner)
Departure: Thursday, 06 April 2017 (after lunch)

Monday, 03 April 2017

07:00 – 07:30 pm Welcome Drinks
07:30 – 09:30 pm Dinner

Tuesday, 04 April 2017

07:30 – 08:45 am Breakfast at Grand Hotel Victoria
08:00 – 09:00 am Breakfast at Villa Vigoni
09:15 – 09:30 am Welcome
09:30 – 11:00 am **Michael Fleischhauer:** Detecting topological order in driven dissipative and interacting quantum systems by topology transfer
Gerhard Rempe: Polyatomic molecules are cool
11:00 – 11:30 am Coffee Break
11:30 am – 01:00 pm **Joachim Wosnitza:** FFLO states in layered organic superconductors
Christoph Becher: Quantum frequency conversion of single photons: How to interface single atoms with single telecom photons
01:00 – 02:30 pm Lunch
02:30 – 04:00 pm Project Presentations:

- **Sebastian Hofferberth and Christoph Tresp (CO.CO.MAT Award Recipient 2017):** C12 / S-NIF-4 - Strongly interacting single photons in an ultra-cold Rydberg gas
- **Matthias Wenzel:** A2 - Dipolar Bose-Einstein condensates
- **Edward Goldobin and Harald Losert:** A5 - Fractional Josephson vortices in the quantum limit



Tuesday, 04 April 2017 (cont.)

04:00 – 04:30 pm	Coffee
04:30 – 05:30 pm	Project Presentations <ul style="list-style-type: none">• Simone Montangero: A7 – Controlling many-body quantum systems• Joschka Wolf: A8 - Charged impurities in an ultracold sea of neutral atoms
05:30 – 07:30 pm	<u>For SFB Pls:</u> Meeting of SFB Principal Investigators <u>For all other participants:</u> Poster Session (Room: Foyer) <ul style="list-style-type: none">• Poster will remain on display until the end of the workshop
07:30 – 09:30 pm	Dinner

Wednesday, 05 April 2017

07:30 – 08:45 am	Breakfast at Grand Hotel Victoria
08:00 – 09:00 am	Breakfast at Villa Vigoni
09:15 – 10:00 am	Christophe Salomon: Dual Bose-Fermi superfluids
10:00 – 11:00 am	Project presentations <ul style="list-style-type: none">• Daniel Hoffmann: B4 - Strongly correlated fermions in and out of equilibrium• Jan Kumlin: B6 - Ordered states in strongly interacting Rydberg gases
11:00 – 11:30 am	Coffee Break
11:30 am – 01:00 pm	Project Presentations <ul style="list-style-type: none">• Hans Peter Büchler: B8 - Quantum phase transitions with cold polar molecules• Florian Meinert: B10 - Photo-association of trilobite Rydberg molecules via resonant spin-orbit coupling• Harald Giessen: S-NIF-3 - Giant excitonic Rydberg atoms in a solid: Potential for precision sensing and quantum effects
01:00 – 02:30 pm	Lunch
03:00 – 09:30 pm	Excursion and Dinner <ul style="list-style-type: none">• Meeting at gate to Villa Mylius-Vigoni at 3:00 pm• Walk to Menaggio (ca. 20 minutes on foot) or alternatively transfer by shuttle bus• Boat trip across Lago di Como• Visit to Villa Carlotta and gardens• Dinner at Ristorante Silvio in Bellagio• Return to Menaggio by boat• Return to Villa Vigoni by bus or 20 minutes walk



Thursday, 06 April 2017

07:30 – 08:45 am	Breakfast at Grand Hotel Victoria
08:00 – 09:00 am	Breakfast at Villa Vigoni
09:00 – 11:00 am	Project Presentations <ul style="list-style-type: none">• Simon Seyfferle: C3 - Coherent control in vertically and laterally coupled quantum dot systems• Philipp Neumann: C4 - Correlated quantum states in defect centre clusters• Andreas Günther: C9 - Quantum sensors with cold atoms• James Lim: C11 – Vibronic coherence in artificial light-harvesters
11:00 – 11:30 am	Coffee Break
11:30 am – 01:00 pm	Project Presentations <ul style="list-style-type: none">• Boris Naydenov: B11 - Quantum simulator with engineered spin arrays in diamond• József Fortágh, Benedikt Ferdinand, Joachim Ankerhold and Helge Hattermann: C2 - Superconducting microtraps T-NIF-5 - Coherent excitation of Rydberg states in superconducting microwave resonators
01:00 – 01:15 pm	Wrap Up
01:15 – 02:30 pm	Lunch
After 02:30 pm	Departure