

MML-RT2-Workshop: Quantum Materials

18.11.2024

11:00 – 12:00 RT2 Board Meeting (712/138, only board members)
12:00 – 13:00 Lunch (Canteen, only board members)

18.11.2024

12:00 – 13:00 Arrival Coffee and Sandwiches (Conference Platform)
13:00 – 14:40 Oral Session 1 (4 talks á 25 min incl. 5 min discussion)
14:40 – 15:20 Coffee break (Poster)
15:20 – 17:00 Oral Session 2 (4 talks á 25 min incl. 5 min discussion)
17:00 – 19:00 Poster Session (21 posters)
19:00 – 21:00 Dinner at HZDR Canteen
21:00 Shuttle to Hotel

19.11.2024

08:00 Shuttle to HZDR
09:00 – 10:40 Oral Session 3 (4 talks á 25 min incl. 5 min discussion)
10:40 – 11:15 Coffee break (Poster)
11:15 – 12:30 Oral Session 4 (3 talks á 25 min incl. 5 min discussion)
12:30 – 13:00 Lunch (Conference Platform)
13:00 – 13.30 Summary and future steps
13:45 Shuttle to Hotel

Scan QR code for WLAN access, or use network name and password:



18.11.2024

13:00 – 14:40 Oral Session 1

13:00	Jakob Nikolaus Dilling	DESY	Investigation of quantum materials at FELs and synchrotrons
13:25	Singho Yamamoto	HZDR	Pulsed-field experiments at x-ray sources
13:50	Sinha Swarnshikha	HZB	PES-coincidence experiments
14:15	Anton Plech	KIT	Ultrafast electron and phonon transport in thin-film heterolayers

15:20 – 17:00 Oral Session 2

15:20	Yishui Zhou	FZJ	Single-crystal growth and neutron scattering studies of magnetic topological kagome metals
15:45	Katrin Schultheiß	HZDR	Solving problems with dancing magnets
16:10	Ahmad Echresh	HZDR	Near-infrared single germanium nanowire photodetectors
16:35	Florian Bärtl	HZDR	⁷⁵ As NMR investigations of the quartic-metal phase in Ba _{1-x} K _x Fe ₂ As ₂

19.11.2024

09:00 – 10:40 Oral Session 3

09:00	Mauricio Bejarano	HZDR	Magnon transductions to spin qubits
09:25	Deshka Gupta	HZB	Tuning of the ultrafast demagnetization by ultrashort spin-polarized currents in multi-sublattice ferrimagnets
09:50	Thomas Rossi	HZB	Transient core-exciton Coulomb screening in wide band-gap semiconductors
10:15	Tatiana Uaman	HZDR	THz mixing with Dirac materials

11:15 – 12:30 Oral Session 4

11:15	Shibabrata Nandi	FZJ	Magnetism in Weyl semimetal Mn ₃ X (X=Ge, Sn)
11:40	Kirill Povarov	HZDR	Pressure-induced quantum phase transition in the S=1 magnet NiCl ₂ -4SC(NH ₂) ₂
12:05	Yung-Hsiang Tung	FZJ	New insights into single-ion anisotropy, magnetic order and magnetic exchange interactions in perovskite-like quantum magnet CaCu ₃ Ti ₄ O ₁₂ : A complementary RIXS, neutron diffraction and inelastic neutron scattering study

Posters:

No.	Name	First name	Center	Title
1	Dangwal Pandey	Arti	DESY	Surface study of graphene and MoS ₂ based vdW heterostructures
2	Dilling	Jakob	DESY	Quantum materials in action: Electronic, structural, and device innovations
3	Huang	Meng-Jie	DESY	Manipulating the electronic structure of LaCoO ₃ by employing Ni doping
4	Koyiloth Vayalil	Sarathlal	DESY	Tailoring of domain wall propagation in perpendicularly magnetized Heavy metal/Ferromagnet trilayers by interfacial modification
5	Scholz	Markus	DESY	Time-resolved momentum microscopy of quantum materials at a FEL
6	Acosta Ramón	Jonathan Gustavo	FZJ	Magnetic ground state in the frustrated Yb _{2-x} Nd _x Ti ₂ O ₇ pyrochlore series
7	Chang	Po-Chun	FZJ	Magnetic structure in the new two-dimensional van der Waals ferromagnet Fe ₃ GaTe ₂
8	Singh	Ankita	FZJ	Magnetic skyrmions in transition metal oxide heterostructure thin film
9	Haverkamp	Robert	HZB	Electronic structure, charge carrier dynamics and phase transitions in functional materials
10	Kühn	Danilo	HZB	Coincidence experiments
11	Kusch	Maximilian	HZB	Atomic excitations and covalency in correlated solids from high-resolution XUV resonant inelastic x-ray scattering
12	Fowley	Ciaran	HZDR	Cleanroom facilities at the IBC
13	García Valenzuela	Aurelio	HZDR	Electronic devices based on 2d-materials
14	Ge	Yuru	HZDR	How fast can a ferroelastic transformation be induced?
15	Ghorbani-Asl	Mahdi	HZDR	Modulation of structural and electronic properties in two-dimensional platinum chalcogenides
16	Hauspurg	Andreas	HZDR	Strong lattice softening near the quantum critical point in CoNb ₂ O ₆
17	Heins	Christopher	HZDR	Self-induced Floquet magnons in magnetic vortices
18	Hlawacek	Gregor	HZDR	Focused ion-beam-based fabrication of single photon emitters
19	Wen	Shuyu	HZDR	Room-temperature omnidirectional magnetic field sensing with negatively charged boron vacancies in hot-pressed hexagonal boron nitride
20	Wen	Peiting	HZDR	Quantum sensing and stray magnetic field imaging with spin defects in hexagonal boron nitride
21	Nergis	Berkin	KIT	Ferroic thin films: growth and performance

Bus Transfers

There is a free bus transfer between Penck Hotel (opposite main entrance) and the conference venue which is **strongly recommended** (travel time per tour approx. 40 min).

Monday, 18.11.2024

Provision of the bus at public bus stop HZDR

20:45

Departure of the bus

21:00 (HZDR to Penck Hotel)

Provision of the bus at HZDR



