Prof. Dr. Dieter Kölle – Curriculum Vitae

Research area and direction:

Experimental solid state physics:

- Superconductivity – basic properties & devices:
  electric transport and noise in thin films, Josephson junctions and SQUIDs;
  nanoSQUIDs for magnetic imaging and investigation of small spin systems
- Superconductor/ultracold atoms hybrid systems:
  superconducting microtraps, microwave resonators coupled to atom clouds
- non-linear effects in superconductors: ratchets, negative mobility
- thin film technology and nanostructures: metals, transition metal oxides
- Magnetism: spin-polarized transport, nanomagnets
- Imaging techniques – low-temperature scanning electron/laser microscopy:
  imaging of electric transport, optical & magnetic properties

Education:

1987	Diploma degree in physics, Universität Tübingen
1992	PhD in physics, Universität Tübingen
1999	Habilitation in experimental physics, Universität zu Köln

Work experience:

1988 – 1992	Universität Tübingen: Research assistant (Ph. D student)
1992 – 1994	Postdoctoral Research fellow of the DFG at the University of California, Berkeley, CA, U.S.A. (Prof. John Clarke)
1994 – 1995	Universität Tübingen: Research assistant (postdoc)
1996 – 2001	Universität zu Köln: Research assistant
1996 – 2001	Forschungszentrum Jülich: Research advisor
since 2001	Physikalisches Institut, Universität Tübingen: Professor

Activities at the Faculty/Dept. of Physics:

since 2002	responsible for labcourse in physics for advanced students
2007 – 2012	responsible for Bachelor/Master program in physics
since 2012	Member of board of directors in the *Center for Light-Matter Interaction, Sensors & Analytics* (LISA$^+$)

Further activities/memberships:

Deutsche Physikalische Gesellschaft (DPG); Management Committee and Workgroup Leader of the COST Action CA16218 *Nanoscale Coherent Hybrid Devices for Superconducting Quantum Technologies* NANOCOHYBRI; program committee of the annual *Coma-Ruga International Workshop on Magnetism & Superconductivity at the Nanoscale*; Board of the European Society for Applied Superconductivity (ESAS).

Teaching experience:

Lectures for Physicists: Introduction to Solid State Physics; Solid State Physics; Physics of Nanostructures; Introduction to Superconductivity; Applications of Superconductivity; Basics and Applications of Thin Film Technology; Basics and Applications of Magnetoelectronics;

Labcourse for Physicists: Experiments for Advanced Students

Publications and invited talks:

$\sim$290 peer-reviewed publications in ISI Web of Knowledge (04/2024); h-index: 47, $\sim$7600 citations; $\sim$50 invited talks

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