

List of topics:

Optically Pumped Magnetometers

- (alkali) atoms
- noble gases
- nitrogen-vacancies
- & other defect centers
- Hybrid sensors
- Bulk sensing

Novel OPM methods and techniques

OPM applications in

- medicine
- magnetocardiography
- magnetoencephalography
- biology
- materials science
- (aero-)space
- geology

OPM applications in

- fundamental science
- dark matter detection
- electric dipole moment searches

OPM theory

WOPM 2019

Key dates:

- Abstracts/ Registration: June 14, 2019
- Acceptance notice: July 19, 2019

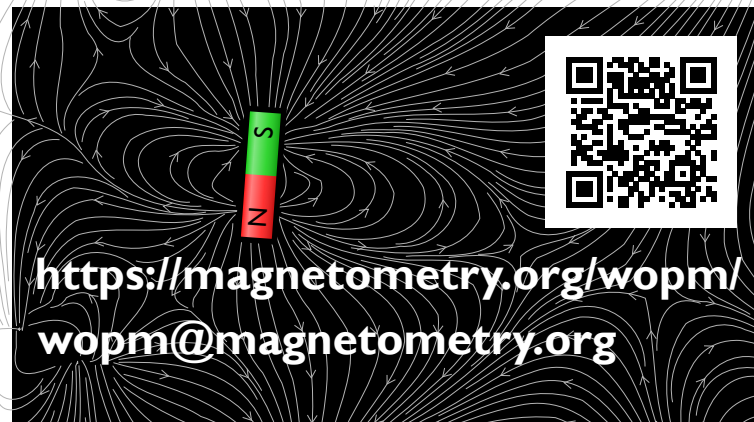
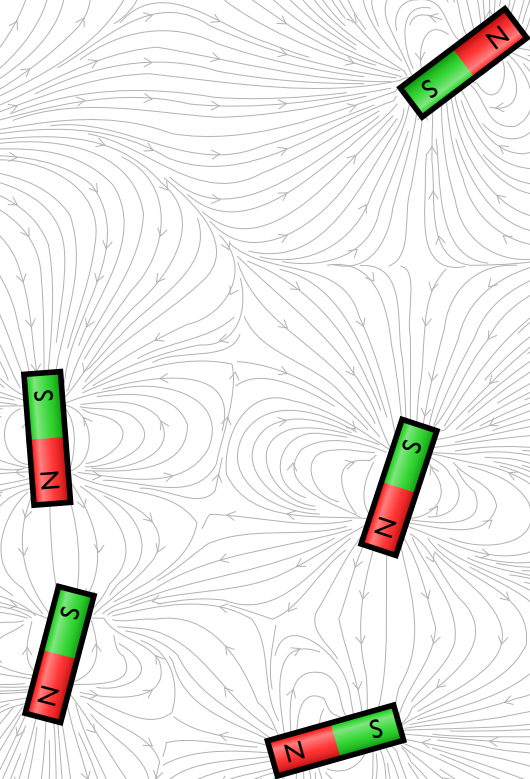
Scientific committee:

- Peter Schwindt, Chair
Sandia National Labs
- Svenja Knappe
University of Colorado & Fieldline
- Tetsuo Kobayashi
Kyoto University
- Lauri Parkkonen
Aalto University & MEGIN
- Tilmann Sander
PTB Berlin
- Arne Wickenbrock
Helmholtz-Institut Mainz

Organizers:

- Ilja Gerhardt
- Arne Wickenbrock

7th Workshop on Optically Pumped Magnetometers



August 14-16, 2019
Helmholtz-Institut
Mainz

7th Workshop on Optically Pumped Magnetometers

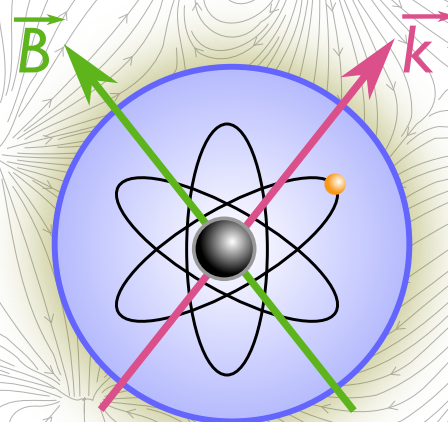
Optically pumped magnetometers (OPMs) are high-sensitivity magnetic field sensors based upon the optical preparation and readout of a quantum system. OPMs have rapidly become relevant and necessary tools across industry and fundamental-science applications.

The commercialization of this technology into portable, low-power sensors has made measuring magnetic fields with femto-tesla sensitivity more accessible than ever before. Geomagnetic mineral exploration has exploited their portable, low-power characteristics. Experiments searching for a neutron electric-dipole moment use their high sensitivity to track stray fields. In medicine, OPMs have made possible magnetoencephalography that is independent of cryogenics and more comfortable for patients.

Meanwhile, the latest research in OPM sensor techniques is pushing toward extreme sensitivities in the atto-tesla regime, and widening the dynamic range and bandwidth of to cover magnetic field sources currently inaccessible by commercial OPMs. As researchers continue to find new applications for OPMs across disciplines, it is vital to connect prospective users with the most advanced capabilities and latest sensor developments.

The 7th annual Workshop on Optically Pumped Magnetometers, WOPM 2019, aims to bring experts and young researchers from both the OPM development and OPM application sides together. WOPM offers an open atmosphere and engaging environment to share and learn about the latest advances in OPM research and applications.

While bio-magnetism has been and will continue to be an important aspect of annual WOPM meetings, **we invite researchers with broad interests in magnetic field measurements to submit abstracts for talks and posters.**



WOPM 2019

Location:
Helmholtz-Institut Mainz
Staudinger Weg 18
D-55128 Mainz



JOHANNES GUTENBERG
UNIVERSITÄT MAINZ

