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The Vienna Doctoral Programme on Complex Quantum Systems
invites you to a

Seminar Talk

by

Dmitry Budker

UC Berkeley

Atomic and Diamond Magnetometry in the Lab, in the field and in the Sky

A lot is going on in the magnetometry field, with new techniques sprouting that allow ever-improving sensitivity and spatial resolution. While atomic-vapor magnetometers are the champions of sensitivity, one of the raves since 2008 has been magnetometers based on color centers in diamond that consist of a substitutional nitrogen atom and a vacancy in a diamond lattice. This talk will cover some recent applications of magnetometers, including nuclear magnetic resonance without magnets (!) as well other magnetometer adventures including measuring magnetic fields in the mesosphere using sodium laser guide stars and searching for ultralight cosmic particles that may be part of the Dark Matter (one of the major embarrassments of modern science for its failure to determine what Dark Matter consists of after many years of concerted efforts). Details can be found at: <https://budker.uni-mainz.de/> and <http://budker.berkeley.edu/>.

**Monday, 16 January 2017,
16:30h get-together with coffee and snacks!**

Lise Meitner Hörsaal, Strudlhofgasse 4, 1st floor, Vienna

The seminar talk will be preceded by a CoQuS Student talk at 17:00h
by

Flaminia Giacomini

University of Vienna

Quantum mechanics in quantum reference frames

Hosted by: Markus Aspelmeyer

