

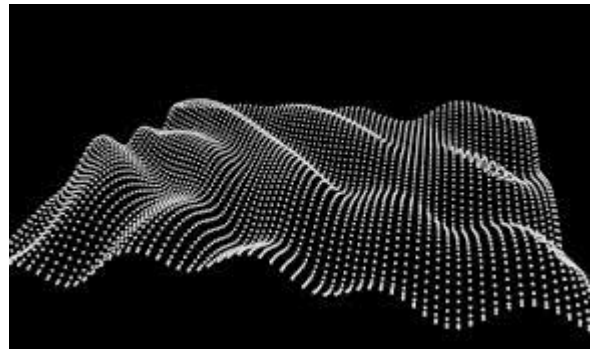
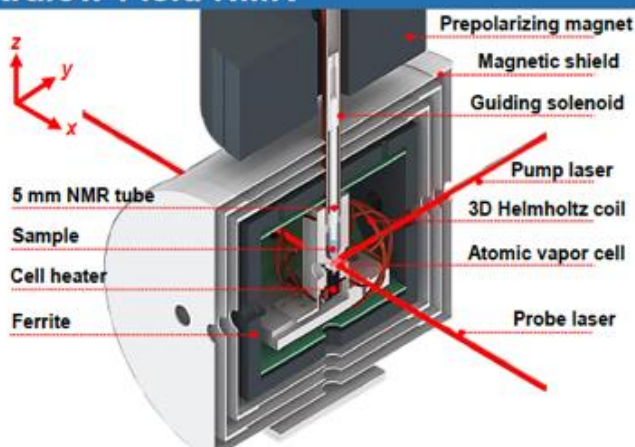
Physikalisches Kolloquium

Unconventional magnetic resonance and ultralight dark matter

Prof. Dr. Dmitry Budker
Universität Mainz / UC Berkeley

In this talk, we will discuss the motivation for searching for dark matter in the form of bosonic fields consisting of particles with masses much less than a millionths of an electron-volt and how one may go about detecting such fields. We will then introduce an unusual but rapidly developing subfield of zero- and ultralow-field nuclear magnetic resonance (ZULF NMR) known colloquially as “NMR without magnets.” Finally, our two story lines will converge in a discussion of how ZULF NMR is used to search for ultralight dark matter, where recent results from the CASPEr-ZULF experiment in Mainz will be presented. CASPEr stands for cosmic-axion spin-precession experiment--- an international program involving several experiments that will be briefly described.

Ultralow-Field NMR



Der Gast wird betreut von Herrn Prof. Dr. Fleischhauer
Gäste sind herzlich willkommen
Kaffeeauschank ab 17:00 Uhr

Montag, 21. Januar 2019, 17:15 Uhr
Gebäude 46 / Raum 46-270