

Prof. Dr. Friederike Schmid
Institut für Physik
friederike.schmid@uni-mainz.de

JOHANNES GUTENBERG
UNIVERSITÄT MAINZ



Prof. Dr. Hartmut Wittig
Institut für Kernphysik
hartmut.wittig@uni-mainz.de

Physikalisches Kolloquium

June 2, 2020 at 4:15 p.m.
None

Laura Baudis
University of Zurich

Elucidating the nature of neutrinos: the state-of-the art in searches for neutrinoless double beta decay

Neutrinos are the only known elementary particles that are Majorana fermion candidates, implying that they would be their own antiparticles. The most sensitive and perhaps only practical probe of the Majorana nature of neutrinos is an extremely rare nuclear decay process, the double beta decay without the emission of neutrinos. After an introduction to the physics of neutrinoless double beta decay, I will present the experimental techniques to search for this exceedingly rare process. I will show the latest results from leading experiments in the field, then discuss future projects and their prospects to probe the inverted neutrino mass ordering scenario.

Contact:
Daniela Reibel
Sekretariat Prof. Dr. Friederike Schmid
Institut für Physik
reibel@uni-mainz.de

Fulya Mank
Sekretariat Prof. Dr. Hartmut Wittig
Institut für Kernphysik
mank@uni-mainz.de

