

Prof. Dr. Hans Jockers
Institut für Physik
jockers@uni-mainz.de

Prof. Dr. Concettina Sfienti
Institut für Kernphysik
sfienti@uni-mainz.de

JOHANNES GUTENBERG
UNIVERSITÄT MAINZ



Physikalisches Kolloquium

Oct. 26, 2021 at 4:15 p.m. c.t.

Hörsaal CO2 Chemie - Nord-Ost (2321) Duesbergweg 10 - 14

Alfons Weber
University of Mainz

Neutrino Oscillations - Physics Beyond the Standard Model

Neutrinos are the most abundant matter particle in the universe, but very little is known about them. Originally proposed by Pauli as an undetectable placeholder to save energy- and angular momentum conservation, they have come a long way and surprising us at every step. It is now known, that neutrinos have mass and that the mass- and interaction-eigenstates are not the same, which leads to a phenomenon called neutrino oscillations. The colloquium will report on the current knowledge on the field concentrating on accelerator based experiments and highlight future facilities, which will make precision experiments and might tell us, if neutrinos and anti-neutrinos behave the same or not. Differences between neutrinos and anti-neutrinos (CP-violation) may shed some light why our universe is matter dominated.

Contact:
Caroline Hoffmann
Sekretariat Prof. Dr. Hans Jockers
Institut für Physik
choffman@uni-mainz.de

Sibylle Wittek
Sekretariat Prof. Dr. Concettina
Sfienti
Institut für Kernphysik
swittek@uni-mainz.de

