

Physikalisches Kolloquium

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»Search for Dark Matter at Belle II«

Einführung: F. Bernlochner

There is overwhelming evidence that we do not understand our Universe. It points to the existence of Dark Matter that makes up a quarter of the Universe. Direct detection experiments and searches at the LHC have focussed on rather heavy Dark Matter particles. A plausible explanation why these experiments have been unsuccessful so far is that Dark Matter particles are actually lighter than the GeV scale and have extremely weak couplings to our Standard Model particles. I will report on searches for light Dark Matter and Axion-Like Particles at Belle II. These particles can be mediators of a new Dark Force or they can be Dark Matter candidates themselves. Belle II in Japan is a flagship experiment at the intensity frontier that will start data taking this year. These searches will profit both from the very large dataset that will be acquired by the Belle II experiment, and from specifically designed triggers for the early running of Belle II. In this talk I will focus on the discovery potential with the first data, and the complementarity with other experiments.

Freitag, 11.05.2018, 15:45 Uhr,

**KIT, Campus Süd,
Otto-Lehmann-Hörsaal, Physik-Flachbau (Geb. 30.22).
Anschließend Nachsitzung im Gastdozentenhaus „Heinrich Hertz“**