



Contribution ID: 190

Type: **Poster**

Neutron optics for neutron beta decay studies with Proton Electron Radiation Channel (PERC)

Tuesday, 18 September 2018 17:15 (15 minutes)

The PERC experiment is currently under construction at the new beam port MEPHISTO at the FRM II. It aims to measure correlation parameters in neutron beta decay with an accuracy improved by one order of magnitude to a level of 10^{-4} .

We will present an overview of the demanding experimental constraints for this precision experiment with a focus on the beamline with its neutron optical components. In particular, this experiment requires a completely non-depolarizing supermirror coating made from Copper/Titanium. We present the current status of its development of as well as results for a solid-state neutron polarizer made from Iron/Silicon layers.

Primary author: Mr HOLLERING, Alexander (Physik Department, TU München)

Co-authors: Prof. MÄRKISCH, Bastian (Physik Department, TU München); Prof. SCHMIDT, Ulrich (Universität Heidelberg); Dr LAUER, Thorsten (Movatec)

Presenter: Mr HOLLERING, Alexander (Physik Department, TU München)

Session Classification: Poster session 2

Track Classification: P1 Instrumentation and methods