

ELPH seminar

講師： Professor Jan Bernauer
Dept. Physics and Astronomy, StonyBrook University

日時： 3月16日（木） 15:00～16:30

場所： 電子光理学研究センター三神峯ホール

題目： Precision scattering experiments
- From form factors to dark matter -

[Abstract]

Precision scattering experiments unlock new pathways testing our understanding of the universe. In the talk, I will first discuss the current challenges in the measurements of the proton form factors -- at low- Q^2 and at high- Q^2 . In the second part, I will discuss a search for a hypothetical dark sector fifth-force as a resonance via electron scattering.

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【参考】

GPPU seminar

3月14日（火） 13:00 – 15:00

“The shape of the proton – a story full with puzzles”

In the lecture, I will give an intro into the physics of electron scattering and will discuss the so called proton radius puzzle, the difference between proton charge radii extracted from spectroscopy and scattering. This puzzle was established about a decade ago, and is still not resolved. After a short overview over the existing measurements, I will discuss the pitfalls and problems in extracting the radius from scattering data. I will finish with an outlook over future experiments.

Tohoku University

Research Center for Electron Photon Science