

異分野基礎科学研究所

量子宇宙研究コアセミナー開催のお知らせ

“Measuring the Lamb shift in hydrogen”

日時： 2022年12月1日（木）14:30~15:30

会場： 異分野基礎科学研究所棟 1階 110室

講師： Amar Vutha 氏

Associate Professor, University of Toronto

【講演要旨】

The discrepancy between measurements of the proton charge radius using atomic hydrogen, compared to muonic hydrogen, has been called the "proton radius puzzle". In particular, despite many decades of work, precision spectroscopy of atomic hydrogen yields a number of discrepant results for the proton radius. The Lamb shift between the 2s and 2p states in atomic hydrogen can shed light on this puzzle, since it directly yields the proton radius without involving the Rydberg constant.

I will introduce the proton radius puzzle, discuss our Lamb shift measurement (2019), and present updates on a new experiment aimed at getting a coherent picture of proton radius measurements.

問い合わせ先： 異分野基礎科学研究所 量子宇宙研究コア

増田 孝彦（内線 8489 Email: masuda@okayama-u.ac.jp）