



Contribution ID: 235

Type: **Talk**

## **[357] 1S-2S Spectroscopy of Positronium**

*Thursday 24 August 2017 18:00 (15 minutes)*

The upcoming measurement at the ETH Zurich Slow Positron Beam aiming at 0.5 ppb precision will be presented. The precursor measurement with a continuous positron beam has been upgraded to include a pulsed beam and a time-of-flight detection scheme to correct for the major systematic error of the experiment, the second order Doppler shift. Additionally the experiment newly uses a field free region avoiding Zeeman and Stark effects.

This work is supported by the ETH Zurich under grant ETH-35 14-1 and the Swiss National Science Foundation under the grant number 200020 159754 and 200020 166286.

**Primary author:** WICHMANN, Gunther (ETH Zürich)

**Co-authors:** CRIVELLI, Paolo (Eidgenoessische Technische Hochschule Zuerich (CH)); COOKE, David (Eth Zurich); HEISS, Michael (ETHZ - ETH Zurich); RUBBIA, Andre (Eidgenoessische Technische Hochschule Zuerich (CH)); Dr BROWN, Ben (Physics Department, Marquette University); ANTOGNINI, Aldo (Paul Scherer Institut); KIRCH, Klaus (PSI)

**Presenter:** WICHMANN, Gunther (ETH Zürich)

**Session Classification:** Nuclear, Particle-and Astrophysics (TASK-FAKT)

**Track Classification:** Nuclear, Particle- and Astrophysics (TASK - FAKT)