



EINLADUNG

zum

VERA - SEMINAR

von

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Austrian Academy of Sciences, Vienna

**Precision spectroscopy of antihydrogen**

Antihydrogen is being studied at the CERN Antiproton Decelerator, the only source of low-energy cooled antiproton beams in the world, which is now in operation for 20 years. It will be extended by the Extra Low ENergy Antiproton (ELENA) storage ring to provide even lower energy antiprotons, thus increasing the number of trapped antiprotons. Antihydrogen, the simplest anti-atom consisting of an antiproton and a positron, is of great interest for tests of CPT symmetry, since hydrogen is one of the best-known atoms. Measurements of the 1S-2S 2-photon transition and the ground state hyperfine splitting offer extremely sensitive results.

The talk will give an overview on the status of experiments, where recently first spectroscopy results have been obtained in a neutral atom trap and describe the ongoing experiments of the ASACUSA collaboration aiming at an in-beam measurement of both the hydrogen and antihydrogen ground state hyperfine structure.

Donnerstag, 28. November 2019, 16:30 Uhr

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",  
1. Stock, Victor-Franz-Hess Hörsaal**

R. Golser

W. Kutschera

E.M. Wild