

LEAP 2013 Uppsala SE



Monday, June 10, 2013 - Saturday, June 15, 2013

Ångström Laboratory, Uppsala, Sweden

Scientific Program

LEAP 2013 is the 11-th international conference on the topic of Low Energy Antiproton Physics, hosted by Uppsala University, Sweden, June 10-15, 2013. It is organized by the Dept. of Physics and Astronomy and the Dept. of Chemistry, Ångström Laboratory. LEAP is an interdisciplinary forum centered around the antimatter partner of the proton. The field of antiproton physics has seen recent breakthroughs: demonstration of long-lasting trapping of anti-hydrogen atoms, the first spectroscopic measurement of antiatomic hyperfine levels, progress in the development of anti-hydrogen beams, approval of the new Extra Low Energy Antiproton Ring, all at CERN's Antiproton Decelerator. Exciting developments are taking place in searches for antimatter in the Universe, with satellite and balloon experiments. Studies of proton-antiproton annihilations leading to exotic gluon-rich states offer perspectives for better understanding of the strong force and the structure of hadronic matter. The start up of the Facility for Antiproton and Ion Research (FAIR) at Darmstadt will mark the beginning of a new era for the antiproton physics with promises of far-reaching insights into structure of matter and the evolution of the Universe. The intent of LEAP 2013 is to actively stimulate the overlap and dialogue between various research forefronts in the diversified field of antiproton physics.

Conference topics:

Matter-Antimatter interactions

Antihydrogen

Standard Model and Fundamental Symmetries

Gravity and Antimatter

Hadron Physics and Nuclear Physics with Antiprotons

Exotic Atoms

Antimatter in the Universe

New Instrumentations and Facilities

Applications of Antiprotons