

Scientific Career of Prof. Dr. Claude Amsler

Claude Amsler studied experimental physics at ETH-Zürich and obtained his PhD in 1975 with the first particle physics experiment performed at the Paul Scherrer Institute (PSI), a measurement of pion scattering on polarized protons. He then joined Queen Mary College (London) as a Research Associate and was delegated to TRIUMF in Vancouver to work on nucleon-nucleon scattering experiments. In 1978 he moved to Brookhaven National Laboratory as a Research Assistant Professor from the University of New Mexico to work on antiproton experiments.

In 1979 he obtained a CERN Fellowship. After a brief leave at the University of Munich he joined in 1982 the Physik-Institut of the University of Zürich, where he submitted his Habilitation in 1987 on nucleon-antinucleon bound states and resonances. He was elected Associate Professor in 1987, then Full Professor of experimental physics in 1999. He has supervised some 40 PhD & Master theses at the Faculty of Sciences.

Claude Amsler contributed to several projects at CERN such as meson spectroscopy in low energy proton-antiproton annihilation - the ASTERIX and CRYSTAL BARREL experiments (which led to the discovery of several new light mesons), in the first production of cold antihydrogen with ATHENA, and in the observation of electromagnetically bound kaon-pion pairs (DIRAC experiment). He also contributed to the development of liquid argon detectors for dark matter searches (ArDM and ASPERA-DARWIN projects) and to a measurement of the neutrino magnetic moment at the Bugey nuclear power plant (MUNU-experiment). He joined CMS at the Large Hadron Collider in 1995. His group initiated a search for heavy baryons which led to the discovery in 2012 of a new heavy baryon containing the b-quark. He was involved in detector developments for the AD6 experiment at CERN and is now member of the ASACUSA collaboration, which is measuring the hyperfine splitting of antihydrogen at CERN's Antiproton Decelerator and of the PANDA collaboration at FAIR/GSI. He is a member of the Particle Data Group, dealing in particular with mesons.

Between 1996 and 2003 he led the Forum of High Energy Physicists in Switzerland and coordinated the foundation of CHIPP (Swiss Institute of Particle Physics). He represented Switzerland in the European nuclear physics board NuPECC between 2003 and 2008. He was a member of the ASPERA Evaluation Committees, and a member of the Swiss National Research Council (SNSF) until 2008. Since then he is advising SNSF on research projects, is a member of review panels of the German Research Foundation (DFG) and a member of the advisory board of the CERN courier.

In summer 2012 he became Professor Emeritus at the Physik-Institut of the University of Zürich. He briefly collaborated with the University of Bern on nuclear emulsions for the antihydrogen gravity experiment at CERN, and then joined in 2016 the Stefan Meyer Institute for Subatomic Physics of the Austrian Academy of Sciences.