



Contribution ID: 4

Type: **Talk**

## **【4】 Accelerators: multifaceted instruments for science and industry**

*Tuesday 22 August 2017 12:30 (45 minutes)*

Accelerators are developed and built to help advance the limits of our knowledge across a wide spectrum of fields. The high energy and precision frontiers in particle physics, synchrotron light sources with high intensity, coherence and extremely short pulses, intense neutron and muon beams as well as proton beams for medical applications, are some examples of recent advances that have taken place at the two world class accelerator laboratories CERN and PSI. The presentation will illustrate the on-going development of accelerator concepts beyond the existing technology including the high-field superconducting magnets, high gradient and compact accelerators. The current analytic capabilities of the present accelerator-based platform for experimental science are being transformed to a facility for industrial problem solving. The advanced manufacturing with analytics platforms will in turn play a crucial role in the development of advanced accelerator components that will form the basis for future accelerator-driven infrastructure.

**Author:** RIVKIN, Lenny (Paul Scherrer Institut (CH))

**Presenter:** RIVKIN, Lenny (Paul Scherrer Institut (CH))

**Session Classification:** Plenary Session