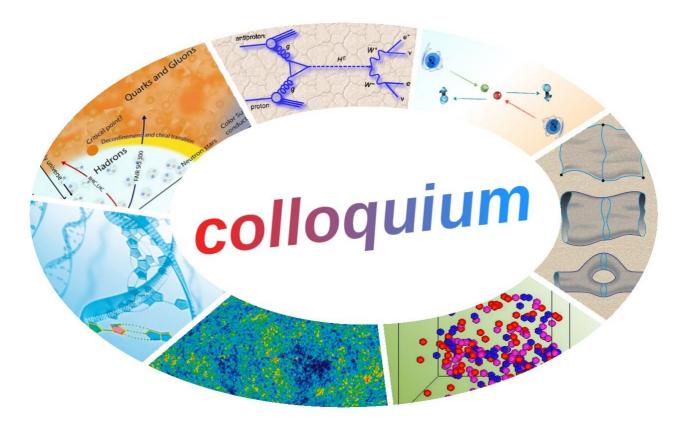
Università di Torino – Dipartimento di Fisica

Sezione di Fisica Teorica



## Venerdi 22 Maggio 2015, ore 14:30, Aula Wataghin

Andrea Latina (CERN)

## **Beam Physics R&D for future particle accelerators**

The latest challenges and achievements in particle accelerator R&D will be presented: high-gradient acceleration, impedance control, beam-based optimization, luminosity performance are some of the challenges that particle accelerators for the post-LHC era must address. The talk will start from a description of the Compact Linear Collider (CLIC) Study at CERN to illustrate these concepts. CLIC is an electron-positron linear collider with a centre-of-mass energy of 3 TeV under development at CERN to allow precise measurements of the Higgs boson, as well as a multitude of searches for New Physics. A summary of the concept, progress and status of the corresponding studies in Accelerator R&D will be given, as well as an outline of the preparation work toward the implementation.