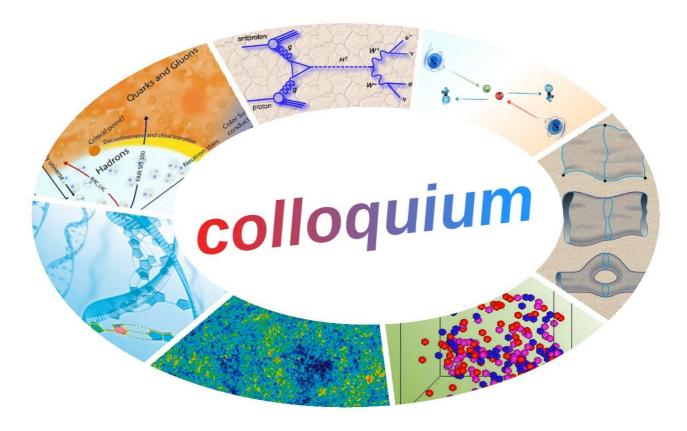
## Università di Torino – Dipartimento di Fisica

## Sezione di Fisica Teorica



Martedì 23 Giugno 2015, ore 14:30, Aula Wataghin

## **Bob McKeown**

(JLAB)

Jefferson-Lab Science: Present and Future

The continuous electron beam accelerator facility at Jefferson Lab, built with advanced superconducting radiofrequency (SRF) technology, provides opportunities to discover fundamental new aspects of the structure of visible matter – protons, neutrons and other bound states, and of the strong interaction, described by the gauge theory Quantum Chromodynamics. Jefferson Lab's accelerator, in operation since 1995, is unique in the world and is currently undergoing a major upgrade to double its energy. The upgrade will bring new opportunities, not only in the study of hadronic matter, but also in searches for new physics, such as a suite of experiments to search for massive "dark photons". For the future, we are developing a plan for a new facility, an Electron Ion Collider.