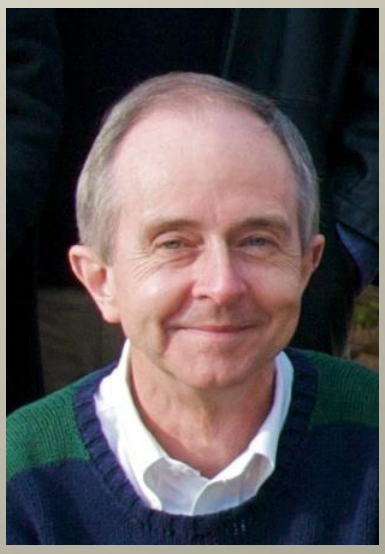
EHQG / KMI Joint Seminar

Electron-Ion Collider : The Ultimate Electron Microscope

Speaker: ***Berndt Mueller***
(Brookhaven National Laboratory / Duke University)



Date: ***2015/10/6 (Tue.) 17:00 ~***
Place: ***ES635***

In our everyday world, "glue", the gauge field responsible for the strong interaction, hides inside protons and neutrons. While its properties are formally encoded in the theory of quantum chromodynamics (QCD), many phenomenological aspects of its dynamics are still unexplored or poorly understood. How do gluons conspire to confine Quarks inside hadrons? What does gluon blackbody radiation look like? How do gluons generate 99 percent of the visible mass of the universe? Is there a limit to the packing density of gluons? I will briefly discuss what we know about the answers to these questions, and how they can be studied at the next generation of particle accelerators.