

**Title:** From Heavy-Ion collisions to Quark Matter

**Lecturer:** Constantin Loizides

**Date and times:** July 23, 2014 – July 25, 2014 at 9:15

**Summary of the lecture:**

The three lectures provide an overview on the physics of heavy-ion collisions. After an introduction into some of the theoretical concepts, the main emphasis is put on the experimental activities and results from heavy-ion collisions at RHIC and LHC in view of studying the properties of QCD matter (Quark-Gluon matter) at high temperature and energy density.

**Prerequisite knowledge and references:**

No prior knowledge of heavy-ion physics assumed. Basic knowledge in particle physics (as given by the lectures of T. Shears on July 1 and 2, 2014) will be helpful. References will be provided during the lectures.

**Short CV:**

- 1998 Summer student (on the NA49 experiment)
- 2001 Physics degree (on lattice QCD)
- 2005 PhD in nuclear physics at University of Frankfurt  
(on the prospects of jet physics with ALICE)
- 2005-2010 Postdoc and from 2008 research scientist at MIT  
(on the PHOBOS and CMS experiments)
- 2010-now Divisional fellow at LBNL (on ALICE)

**Publications:**

See <http://loizides.web.cern.ch/loizides/> for a list of selected publications and presentations.