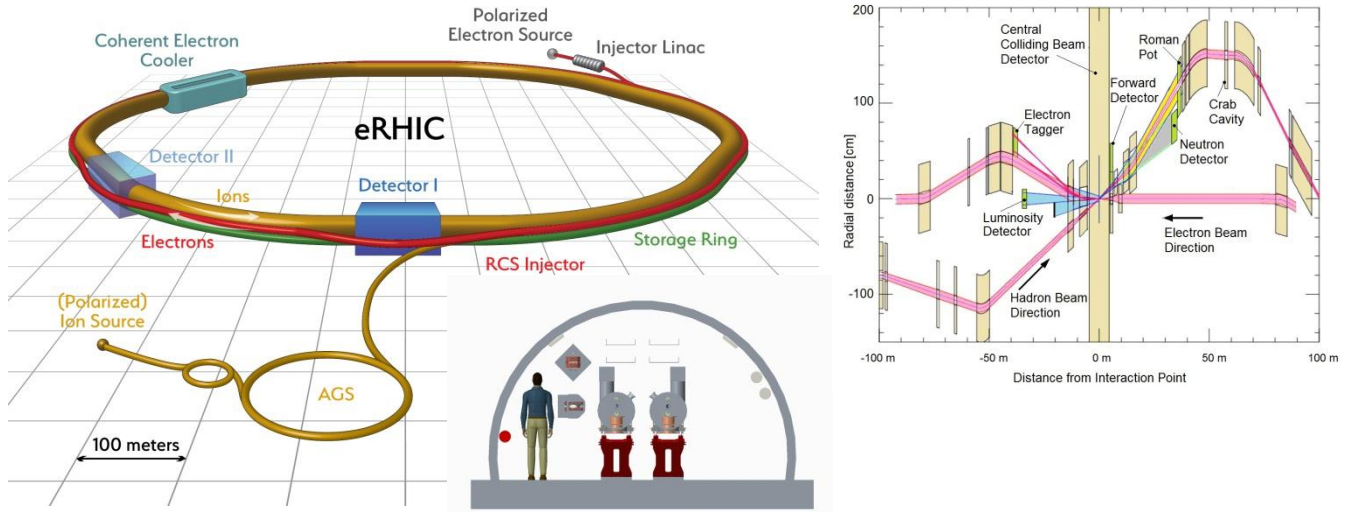


eRHIC Design Status

JAI – Oxford, Accelerator Science Seminars 2018

Dr. Christoph Montag

8th of May at 4.15pm in the Dennis Sciama lecture theatre



Abstract

The electron-ion collider eRHIC aims at luminosity around $10^{34} \text{cm}^{-2} \text{s}^{-1}$, using strong cooling of the hadron beam. Since the required cooling techniques are not yet readily available, an initial version with a peak luminosity of $4.4 \cdot 10^{33} \text{cm}^{-2} \text{s}^{-1}$ is being developed that can later be outfitted with strong hadron cooling. The current design status and the envisioned path towards $10^{34} \text{cm}^{-2} \text{s}^{-1}$ luminosity will be presented.

Christoph Montag received his PhD from the University of Hamburg in 1997, working on vibration effects in Linear Colliders. After PostDoc positions at KEK and DESY he joined Brookhaven National Lab as a staff scientist in 2001. From 2010 to 2015 he coordinated the low energy program at RHIC which aims at searching for the critical point in the QCD phase diagram at energies below the nominal injection energy of RHIC. In 2016 he became head of the eRHIC design team.



The Seminar will be broadcasted on the Webex, and the connection information will be posted on the web site <http://www.adams-institute.ac.uk/lectures>