

## **EIC\_NET, group in Trieste**

EIC is an ion-electron collider (<https://www.bnl.gov/eic/>), now approved for construction in USA. It is the first collider with highly polarized electron and light nuclei (proton, deuterium,  $^3\text{He}$ ) ever built and the first one using a variety of ions, from the lightest till uranium.

The experiments at EIC are being prepared and the Trieste group, together with the other Italian colleagues of the EIC\_NET project and the world-wide EICUG community (<http://www.eicug.org/>) are contributing to this preparatory phase.

### **PhD activities**, list of proposed research topics:

- development of event generators according to the knowing aspects of the lepton-ion scattering;
- development of simulation tools (Montecarlo) to study the performance of the proposed detectors in the EIC environment; in particular: Cherenkov imaging detectors;
- R&D activity dedicated to the development of single photon sensors for the Cherenkov imaging detectors.

### Contacts:

- **Silvia Dalla Torre**, dirigente di Ricerca INFN, [Silvia.DallaTorre@ts.infn.it](mailto:Silvia.DallaTorre@ts.infn.it)
- **Andrea Bressan**, professor at Trieste University, [Andrea.bressan@ts.infn.it](mailto:Andrea.bressan@ts.infn.it)