Study Group: Light-ion physics with EIC

Online lecture/tutorial 29-Apr-2026. Introduction by Wim Cosyn, Dien Nguyen, Christian Weiss

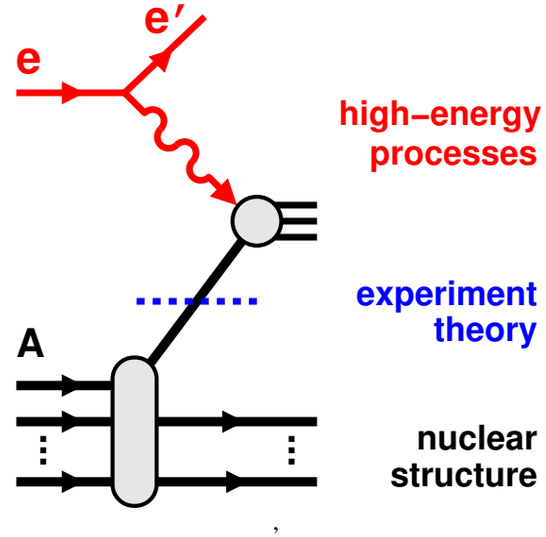
Light-ion physics

High-energy electromagnetic scattering on light nuclei

Science: Neutron + proton for hadron spin/mass, QCD origin of nuclear interactions, nuclear quarks/gluons, 3D imaging of nuclei, coherence and diffraction…

Intersection: Low-energy nuclear structure ↔ high-energy process

Unique features: Initial state from nuclear theory, final state nuclear breakup detection, polarized beams, complex observables



Evolution: JLab 6/12 GeV → EIC

More information: Summer School "Light-ion physics with EIC", FIU, 19-27 Jun 2025 [Webpage]

Study group

Goals: Provide training in specific theoretical and experimental methods for high-energy scattering on light nuclei. Develop community in light-ion physics with EIC

Target audience: Graduate students / postdocs / researchers in theoretical and experimental nuclear physics and related areas

Activities: Online lectures + discussion: 1 topic per session, ~1.5 h.
Interactive learning with notebooks/code

Communication: Indico pages: https://indico.jlab.org/event/1058
Slack channel: [Invite link]

Each event in series has own Indico page, cross linked

Upcoming lectures

Wed 27 May, 11 AM EDT

Simon Širca (U. Ljubljana):

Electron scattering from polarized deuterons in fixed-target experiments

Indico: https://indico.jlab.org/event/1073

Further lectures planned: Nuclear structure theory, nuclear reactions, polarized ion physics

Announcements will be distributed: E-mail, Slack, Mailing lists (EICUG)

Please suggest topics/lecturers/activities!

Dates/times can be adjusted for schedule and timezones

Please join us!

Today's lecture + discussion

Wed 29 Apr, 11 AM ET

Vadim Ptitsyn (BNL):

Polarized ion beams at EIC

Indico: https://indico.jlab.org/event/1071