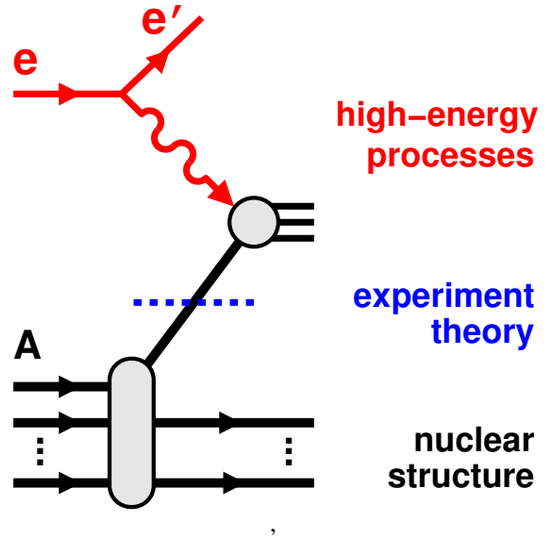
Study Group: Light-ion physics with EIC

Online meeting 28-Oct-2025. Introduction by Wim Cosyn, Dien Nguyen, Christian Weiss

Emerging science program



High-energy electromagnetic scattering on light nuclei

Science: Neutron structure, nuclear interactions and short-range structure, nuclear partons, coherence and diffraction, 3D imaging…

Initial state: Few-body system, nuclear structure theory
Final state: Breakup/tagging, coherent processes, far-forward detection
Polarization: Ion beams, polarimetry, observables

Unique combination of methods - theoretical, experimental, technical

JLab 6/12 GeV → EIC

Training and community building

Summer School “Light-ion physics in the EIC era”,
Florida International University, 19-27 Jun 2025
35 trainees, 13 lecturers. Supported by NSF [Webpage]

Permanent study group: Online lectures and activities. ←
Sustained effort. Include new participants, lecturers, topics

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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, aim for ~1 lecture per month

Includes interactive learning activities: Notebooks, writing + running code

Other activities: Student presentations, topical discussions, networking

Scope and schedule to be discussed! Whatever is most useful and practically possible

Communication

Slack channel: https://join.slack.com/t/lightnuclei-npk2713/shared_invite/zt-3fr9c2x0n-e34VhoZ8RUkPL6RieYCZFw

This will work if we can get everyone interested on Slack. Please sign up!

Indico page: https://indico.jlab.org/event/998/

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Lecture today

Frank Rathmann (BNL)

Hadron Polarimetry at the Electron-Ion Collider: Challenges and Solutions

28 October 2025, 15:00-16:30 EDT

~1 h lecture + open discussion

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