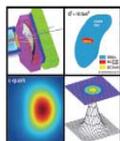


EPJ Web of Conferences **112**, 00001 (2016)

DOI: [10.1051/epjconf/201611200001](https://doi.org/10.1051/epjconf/201611200001)

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POETIC VI

September 7th-11th 2015

Palaiseau, France

6th International Conference on Physics Opportunities at an Electron-Ion Collider

Sixth International Conference on Physics Opportunities at an Electron-Ion Collider

September 7-11, 2015

Ecole Polytechnique, Palaiseau, France

<http://poetic6.sciencesconf.org>

Following earlier workshops at Stellenbosch, Bloomington, Valparaiso, Jyväskylä and Yale, the sixth edition of the International Conference on Physics Opportunities at an Electron-Ion Collider (POETIC) took place in École Polytechnique (Palaiseau, France) from September 7th to 11th 2015. Organized by the Centre de Physique Théorique (CPHT) of École Polytechnique and the Service de Physique Nucléaire (SPhN) of the Commissariat à l'Énergie Atomique (Saclay), and sponsored by the CNRS, the P2IO labex, Brookhaven Lab (New York) and Jefferson Lab (Virginia), the conference gathered 125 scientists from all over the world.

An electron-ion collider (EIC) can be thought of as a microscope to study gluons, those particles that bind quarks together, ensuring the cohesion of protons and neutrons, as well as that of atomic nuclei. Gluons are responsible for 98% of the visible mass of the universe, yet the mechanisms at play, described by quantum chromodynamics (QCD), remain to be understood. This is why the US nuclear physics community announced that they had unanimously identified an EIC as the number one priority for future construction.

This was made public during the conference opening presentation, and by now has been further endorsed by the National Science Advisory Committee in their October 2015 recommendations to the United States' DOE and NSF. The future EIC project will open a unique and decisive window on the dynamics of gluons, and in particular on confinement, one of QCD's most mysterious feature.

The conference went on with five days of presentations by internationally renowned experts, covering the recent theoretical, phenomenological and experimental developments that advanced

the field of EIC physics. Several other relevant topics related to the physics in the CEBAF, RHIC, and LHC experimental programs were also discussed. These presentations, often followed by vivid and passionate discussions, are reported in these conference proceedings. The next edition of POETIC will take place in Temple University (Philadelphia) in the fall 2016.

Cyrille Marquet, Bernard Pire, Franck Sabatié

