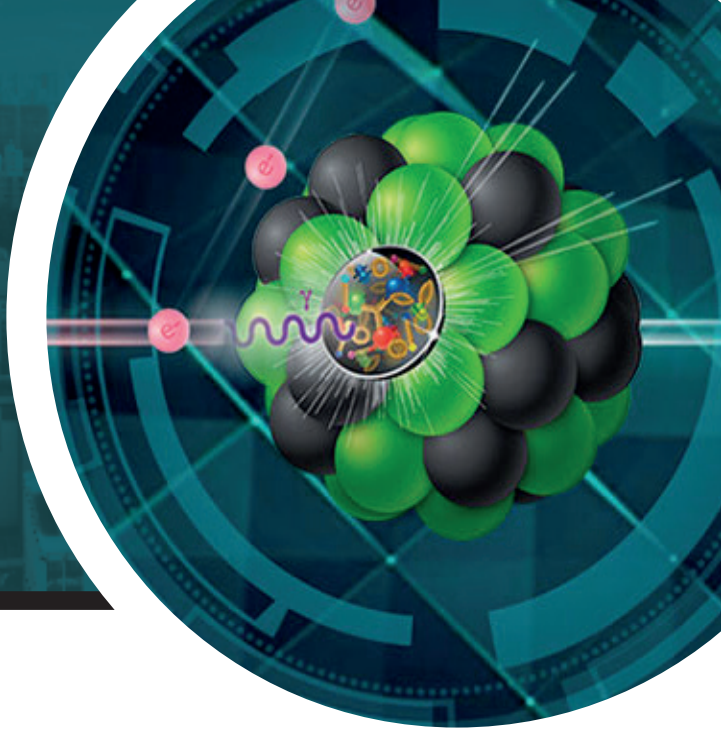
ICTP SAIFR | International Centre for Theoretical Physics South American Institute for Fundamental Research

INSTITUTO PRINCIPIA

PHYSICS OPPORTUNITIES AT AN ELECTRON-ION COLLIDER 2023



May 2-6, 2023

at Principia Institute, São Paulo, Brazil

CONFIRMED SPEAKERS

Arlene Aguilar (Unicamp, Brazil)
Elke Aschenauer (Brookhaven National Lab, USA)
Adnan Bashir (U. de Michoacán, Mexico)
Shohini Bhattacharya (Brookhaven National Lab, USA)
Fabio L. Braghin (Federal U. of Goias, Brazil)
Wim Cosyn (Florida International U., USA)
Aurore Courtoy (UNAM, Mexico)
Tobias Frederico (I. Tecnologico de Aeronautica, Brazil)
Adam Freese (U. of Washington, USA)
Victor Goncalves (U. Federal de Pelotas, Brazil)
Cedric Lorcé (École Polytechnique, France)
Jamal Jalilian-Marian (Baruch College, USA)
Khépani Raya Montaño (U. of Huelva, Spain)
Fernando Navarra (IF-USP, Brazil)
Emmanuel de Oliveira (UFSC, Brazil)
Petja Paakkinen (U. of Jyväskylä, Finland)
Brian Page (Brookhaven National Lab, USA)
Patrizia Rossi (Jefferson Lab, USA)
Farid Salazar (U. of California Los Angeles, USA)
Werner K. Sauter (I. de Física e Matemática – UFPel, Brazil)
Fernando Serna (U. de Sucre, Colombia)
Fernanda Steffens (Bonn U., Germany)
Jun Takahashi (Unicamp, Brazil)
Anthony Thomas (U. of Adelaide, Australia)
Giorgio Torrieri (Unicamp, Brazil)
Zhenyu Ye (U. of Illinois in Chicago, United States)

The primary goal of the conference is to continue the advancement of the field of the future Electron-Ion Collider (EIC) physics which was granted Critical Decision 1 (CD-1) by the U.S. Department of Energy (DOE) and will be built at Brookhaven National Lab in New York. This collider will be a first-of-its-kind research machine and will push the limits of our knowledge of accelerator science, particle detector design, high-performance computing and more.

The main challenges the EIC will address are: the precision 3D imaging of the internal structure of protons and nuclei; solving the mystery of how the quarks and gluons inside the proton combine their spins to generate the proton's overall spin; the origin of the nucleon's mass; the search for a color glass condensate, which may be produced for the first time by an EIC, providing deeper insight into gluons and their interactions; in-medium modifications of the nucleon structure functions; and casting fresh light on the mystery of why quarks or gluons can never be observed in isolation and are confined within protons and nuclei.

There is no registration fee.

Registration deadline:
March 26, 2023

Online registration and more information:
https://www.ictp-saifr.org/poetic2023

FAPESP ICTP unesp IFT - UNESP Jefferson Lab Brookhaven National Laboratory I·AN Inter-American Network of Networks QCD

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