The Inter-American network of networks of QCD challenges

AccelNet: *Accelerating Research through International Network-to-Network Collaborations*

Daniel Tapia Takaki
University of Kansas

EIC User Group meeting
CFNS Stony Brook – July 28, 2022

Program goals

(1) Develop strategic partnerships across the various physics research networks in the Americas to tackle QCD challenges;

(2) Identify the needs, strengths and synergies of network partners for developing large scale science projects in the US;

(3) Design activities for researchers in the U.S., Canada, and Latin America that will facilitate leveraging complementary resources for QCD research, and

(4) Enhance the training of the next generation of researchers in a novel set of skills that include international multi-team experience.

Research areas related to QCD

- Accelerator technologies

- Theory

- High performance computing

- Particle detectors, instrumentation and electronics

- Real-time event selection

- Software development, and development of Monte Carlo simulation

- AI and QIS tools

Kick-off meeting at CFNS on Dec 16, 2021
120 participants
https://indico.bnl.gov/event/13562/

List of invited networks

We are an open network: future networks can also participate

- Electron-Ion Collider User Group
- Jefferson Lab Users Association
- RHIC and AGS User's Group
- US LHC Users Association
- Association of Latin American Nuclear Physics and Applications (ALAFNA),
- Southeastern Universities Research Association (SURA)
- Latin American Association for High Energy, Cosmology and AstroParticle Physics
- Nuclear Physics and Applications (INCT-FNA)
- Rede Nacional de Física de Altas Energias (RENAFAE)
- Mexican Particle Accelerator Community (CMAP)
- EIC-Canada Collaboration
- California EIC Consortium

List of invited network partners

We are an open network: future networks can also participate

- Center for Frontiers in Nuclear Physics (CFNS) at Stony Brook University & Brookhaven National Laboratory
- The Electron-Ion Collider Center at Jefferson Lab
- Center for Accelerator Science at Old Dominion University
- The ICTP South American Institute for Fundamental Research (ICTP-SAIFR)
- Canadian Institute of Nuclear Physics
- TRIUMF. Canada's Particle Accelerator Center
- The Institute of Nuclear Theory
- Center for Nuclear Femtography

Community-led program
Some examples of activities of interest

- Support to organize workshop, conference, summer schools

- Support for research visits

- Mobility
  - US person → to Canada or Latin America
  - Canadian or Latin American person → to US

- Support White Papers or community-led documents preparations

- Young scientists-led events

- Projects that promote development of early-career researchers

- Activities that promote better communication channels

Examples of supported proposals related to EIC so far - Full list will be published soon

- **Accelerators:**
  - EIC acceleration workshop at ODU organized by ODU/Jlab and the Mexican Community of Particle Accelerators and three Mexican institutions (Yucatan, Sinaloa and Guanajuato). Proposed for December 2022 or early spring 2023

- **Experimental:**
  - EIC workshop in Mexico for spring 2023
  - Valentina Vega (Will Brook's student from Chile). Visit for R&D work for the EIC at FNAL
  - Kong Tu (BNL / CFNS) research visit

- **Theory**
  - Research exchange program by UCLA and BUAP-Puebla
  - Research exchange program by SMU and IF-UNAM
  - "Production of exotic systems at the EIC". Research visit of Victor Goncalves (Brazil). Visit at Texas A&M-Commerce. Spring 2023

IANN-QCD contacts

- **Program coordination:** Daniel Tapia Takaki, Christine Aidala, Carlos Bertulani, Jean Delayen, and Abhay Desphande

- **Your network representatives** (see list of invited networks)

- **National contact people:** Daniel de Florian (Argentina), William Brooks (Chile), Irais Bautista (Mexico, theory) and Gerardo Herrera Corral (Mexico, Experimental)

Inquiries about this call should be directed to:

Dr. Daniel Tapia Takaki
jdtt@ku.edu

For specific inquiries to explore research opportunities can also be directed to:

- Research opportunities in the EIC project
  Dr. Abhay Desphande
  abhay.deshpande@stonybrook.edu

- Research opportunities in the experimental QCD program
  Dr. Christine Aidala
  caidala@umich.edu

- Research opportunities in accelerator science and technologies
  Dr. Jean Delayen
  delayen@jlab.org

- Research opportunities in the theoretical and computing QCD program
  Dr. Carlos Bertulani
  carlos.bertulani@tamuc.edu

International Advisory Board

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- Prof. Robert Tribble (Brookhaven National Lab and Texas A&M University)

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2022 Open call for Proposals
Go to http://www.iann-qcd.org

- For this call, IANN-QCD is interested in supporting the following types of activities:

Activity 1: Exchange visit programs

Activity 2: Early-stage research projects

Activity 3: Participation or organization of scientific meetings

Activity 4: Strategic partnerships

Application is currently open

Possible new directions

- We are considering opening more targeted calls for proposals

- Currently exploring a joint call for proposals with other international networks. Stay tuned !

- I.ANN QCD is a community-led network of networks. Your inputs and engagement are essential for making it a success

Useful links

Please help us advertising this program and get engaged !

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