

## **Session Program**

**Jan 22 - 24, 2024**

# **1st Workshop on Baryon Dynamics from RHIC to EIC**

## **Session**

CFNS, C120

Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building.

# Mon, January 22

9:00 AM

## Session: Session 1

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Dima Kharzeev

09:00 – 10:00

**(Remote) The string-junction and its high-energy implications**

**Speaker**

Dr Gabriele Veneziano

10:00 – 10:30

**Coffee Break**

10:30 – 11:00

**(Remote) Classical non-planar stable motions of the baryon- and tetraquark strings**

**Speaker**

Xavier Artu

11:00 – 11:30

**(Blackboard) Comments on the Baryon Junction Effective Theory**

**Speaker**

Zohar Komargodski

11:30 – 12:00

**Signatures of baryon junctions in semi-inclusive deep inelastic scattering**

**Speakers**

David Frenklakh, Wenliang Li

12:00 PM

1:30 PM

## Session: Session 2

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Zhangbu Xu

13:30 – 14:10

**Recent STAR Results on Baryon Number Carrier**

**Speaker**

Rongrong Ma

14:10 – 14:40

**(Cancelled) ALICE results on baryon transport and baryon number carrier**

**Speaker**

Karel Safarik

14:40 – 15:10

**What have we learned from BRAHMS on baryon stopping?**

**Speaker**

Flemming Videbaek

15:10 – 15:30

**Coffee Break**

5:00 PM

15:30 – 16:00

## Baryon production in A Multi-Phase Transport (AMPT) model

### Speaker

Zi-Wei Lin

16:00 – 16:30

## (Remote) Study of baryon and charge transport with UrQMD model

### Speaker

Zebo Tang

16:30 – 17:00

## Simulating baryon transport

### Speaker

Bjoern Schenke

## Tue, January 23

9:00 AM

### Session: Session 3

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Nicole Lewis

09:00 – 09:35

#### (Remote) Baryon Stopping and the Valence Quark Distribution at Small x

**Speaker**

Yuri Kovchegov

09:35 – 10:10

#### Proton fragmentation in high-energy collisions

**Speaker**

Adrian Dumitru

10:10 – 10:40

#### Coffee Break

10:40 – 11:10

#### (Remote) Very forward phenomena in pA and UPC

**Speaker**

Mark Strikman

11:10 – 11:40

#### Baryon production in PYTHIA

**Speaker**

Leif Lönnblad

11:40 – 12:00

#### Discussions

12:00 PM

1:30 PM

### Session: Session 4

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Prithwish Tribedy

13:30 – 14:00

#### (Remote) Backward meson production at high energies: Connection with baryon stopping, and experimental prospects

**Speaker**

Spencer Klein

14:00 – 14:30

#### Baryon production at HERA

**Speaker**

Henry Klest

14:30 – 15:00

#### Opportunities at EIC for testing baryon number carrier

**Speaker**

Dr Niseem (Magdy) Abdelrahman

3:30 PM

3:50 PM

6:00 PM

15:00 – 15:30

**Short remarks: Baryon stopping in photo-process from EMC to UPC to LHC**

**Speaker**

Zhangbu Xu

**Session: Session 5**

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Wenliang Li

15:50 – 16:25

**GPDs**

**Speaker**

Simonetta Liuti

16:25 – 17:00

**u-channel Exclusive Electroproduction at Jefferson Lab**

**Speaker**

Garth Huber

17:00 – 17:30

**Transition Distribution Amplitudes and hard exclusive reactions with baryon number transfer**

**Speaker**

Kirill Semenov Tian-Shansky

## Wed, January 24

9:00 AM

### Session: Session 6

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Chun Shen

09:00 – 09:40

#### (Remote) Baryon fluctuation in baryon rich QCD matter

**Speaker**

Bedanga Mohanty

09:40 – 10:10

#### Baryon, strangeness and electric charge fluctuation in heavy-ion collisions

**Speaker**

Almaalol Dekrayat

10:10 – 10:40

#### Coffee Break

10:40 – 11:10

#### Baryon Stopping: Nucleon Decelerating vs String Junction Breaking

**Speaker**

Lipei Du

11:10 – 11:40

#### New ansatz on baryon deposition & phenomenology of heavy ion collisions

**Speaker**

Sandeep Chatterjee

11:40 – 12:00

#### (Remote) Short Remarks: Baryon production in HIJING B/B-bar

**Speaker**

Rene Bellwied

12:00 PM

1:30 PM

### Session: Session 6

**Session** |

**Location:** CFNS, C120, Peter Paul Seminar Room - C120, Center of Frontiers in Nuclear Science, Stony Brook University CFNS is located at Level C of Physics Building. |

**Convener:** Jaki Noronha-Hostler

13:30 – 14:00

#### Baryon Stopping Models

**Speaker**

Gregoire Pihan

14:00 – 14:30

#### Baryon structure and charmonium production in high multiplicity proton-proton collisions

**Speaker**

Fernando Navarra

14:30 – 15:00

#### Multistrange baryons

**Speaker**  
Huan Huang

**15:00 – 15:30    Coffee Break**

**15:30 – 15:50    Short Remarks: Multistrange baryons**

**Speaker**  
Tommy Tsang

**15:50 – 16:10    Short Remarks: Interpretations of u-channel Cross Sections**

**Speaker**  
Zachary Sweger

**16:10 – 16:30    Short Remarks: Future experimental plans on baryon carrier search**

**Speaker**  
Prithwish Tribedy

**16:30 – 17:00    Concluding Remarks/Discussions/White-paper**

**Speaker**  
Dima Kharzeev

5:10 PM