

Session Program

18–22 Jul 2022

Workshop on Particle Correlation and Femtoscopy, July 2022

Presentations

Facility for Rare Isotope Beams, 1300
640 South Shaw Lane, East Lansing, MI 48824

Monday 18 July

09:05

Presentations: Chair: K.Brown (Lisa/Zbroszczyk/Timmons)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

09:05–09:35 Stellar Intensity Interferometry (SII) with the VERITAS array

Speaker

Mike Lisa

09:35–10:05 What we can learn from femtoscopy at high, intermediate and low energies

Speaker

Hanna Zbroszczyk

10:05–10:30 The ALICE White Paper -- Emphasis on Correlations

Speaker

Anthony Timmins

10:30

10:55

Presentations: Chair: K.Brown (Kisiel/Gangadharan/Brown)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

10:55–11:20 Angular Correlations

Speaker

Adam Kisiel

11:20–11:45 Three-Pion Coulomb Scattering Using Scalar QED

Speaker

Dhevan Gangadharan

11:45–12:10 Overview of the Nuclear Data Group

Speaker

Dave Brown

12:10

14:00

Presentations: Chair: Danielewicz (Rzesa/Korodi/Kovacs/Pawłowska)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

14:00–14:20 A study of the anti-deuteron source in Pb-Pb collisions with ALICE

Speaker

Wioleta Rzesza

14:20–14:40 Centrality Dependent Levy HBT Analysis at CMS

Speaker

Balazs Korodi

14:40–15:00 Kaon Femtoscopy with Levy Sources at PHENIX

Speaker

László Kovács

15:00–15:20

Charged and neutral kaons femtoscopy measured by the STAR experiment**Speaker**

Diana Pawlowska

15:20

15:45

Presentations: Chair: Danielewicz (Stefaniak/De Souza Lemos/Szymanski/Kincses/Porfy)**Session** | **Location:** Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

15:45–16:10

pp, pd and pHe correlations at HADES**Speaker**

Maria Stefaniak

16:10–16:30

Strange particle correlations at top LHC energies with the CMS Experiment**Speaker**

Dener De Souza Lemos

16:30–16:50

Dynamics of particle emission probed by femtoscopic correlations in the STAR experiment**Speaker**

Paweł Szymański

16:50–17:10

Bose Einstein correlations of charged kaons produce by $\sqrt{s}=200$ GeV Au+Au collisions in STAR**Speaker**

Daniel Kincses

17:10–17:30

Symmetric Stable Levy HBT Measurements at NA61**Speaker**

Barnabas Porfy

17:30

Tuesday 19 July

09:00

Presentations: Chair: Csanad (Plumberg/Pan/Voloshin/Raha)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

09:00–09:25 Modeling Charge Balance Functions

Speaker

Chris Plumberg

09:25–09:50 Balance Functions at ALICE

Speaker

Jinjin Pan

09:50–10:15 Challenges in Constructing Experimental Charge Balance Functions

Speaker

Sergei Voloshin

10:15

10:50

Presentations: Chair Csanad: (Pruneau/Almaalol/Carzon)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

10:50–11:15 Latest Charge Balance Functions from ALICE

Speaker

Claude Pruneau

11:15–11:35 Initializing Conserved Charges in the Initial State of Heavy-Ion Collisions

Speaker

Patrick Carzon

11:35–12:00 Baryon number, strangeness, and electric charge fluctuations in hydrodynamics at the LHC

Speaker

Dekrayat Almaalol

12:00

14:00

Presentations: Chair: Kisiel (Liu/Csanad/Kapusta)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

14:00–14:20 Directed Flow at Forward and Backward Pseudorapidity at STAR

Speaker

Xiaoyu Liu

14:20–14:45 Using the STAR EPD to Measure Rapidity Distributions

Speaker

Mate Csanad

14:45–15:10 Embedding a Critical Point in a Background EoS for QCD

Speaker

Joseph Kapusta

15:10

15:35

16:00

Presentations: Chair Kisiel: (Singh)

Session | **Location:** Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

15:35–16:00

Simulating Heavy-ion Collisions at Non-Zero Baryon Densities

Speaker

Mayank Singh

Wednesday 20 July

09:00

Presentations: Chair: Lisa (Tam/Mroczek/Sorensen/Jia)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

09:00–09:20

Probing the equation of state of nuclear matter with two-particle correlation functions

Speaker

Chi Kin Tam

09:20–09:40

Influence of a critical point on the baryon kurtosis and in and out-of-equilibrium hydrodynamics

Speaker

Debora Mroczek

09:40–10:05

Finite number and finite size effects on fluctuations in hadronic transport

Speaker

Dr Agnieszka Sorensen

10:05–10:30

Imaging Nuclear Structure with Heavy Ion Collisions

Speaker

Jiangyong Jia

10:30

10:55

Presentations: Chair: Lisa (Jia/Zhang/Tribedy/Zhao)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

10:55–11:20

Measurement of Nuclear Deformation at STAR

Speaker

Chunjian Zhang

11:20–11:45

Signatures of Baryon Junctions in Isobar Collisions and PhotoNuclear Processes

Speaker

Prithwish Tribedy

11:45–12:10

Collectivity and Baryon Junctions in Ultra-Peripheral Collisions

Speaker

Wenbin Zhao

12:10

Thursday 21 July

09:00

Presentations: Chair Zbroszczyk: (Vozabova/Moschelli/Gonzalez)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

09:00–09:20 Light Nuclei: Coalescence vs Thermal Production

Speaker

Radka Vozábová

09:20–09:45 Multiplicity and Momentum Correlations

Speaker

George Moschelli

09:45–10:10

Two-particle transverse momentum correlations for assessing viscous effects in pp, p–Pb and Pb–Pb systems with the ALICE detector

Speaker

Victor Gonzalez

10:10

10:35

Presentations: Chair: Zbroszczyk (Ryu/Kasza/Humanic,Ruggiano)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

10:35–11:00 Studying bulk viscosity in RHIC BES energies

Speaker

Sangwook Ryu

11:00–11:20 New, multipole solutions of dissipative hydrodynamics

Speaker

Gábor Kasza

11:20–11:45 Studying the $a_0(980)$ Tetraquark Candidate with Kaon Interactions at ALICE

Speaker

Thomas Humanic

11:45–12:05

Two-Particle Angular Correlations of identified particles in pp and Pb-Pb collisions at LHC energies

Speaker

Daniela Ruggiano

12:05

14:00

Presentations: Chair Pratt: (Gyulassy/Verde/Odyniec)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

14:00–14:30 The Mystery of Perfect Fluidity in QCD with Pawel

Speaker

Miklos Gyulassy

14:30–15:00 Probing emitting sources and clustering aspects at intermediate energies

Speaker
Giuseppe Verde

15:00–15:30 Connecting experiment to the QCD phase diagram

Speaker
Grazyna Odyniec

15:30

15:55

Presentations: Chair: Pratt (Mrowczynski/Lacey/Lynch)

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15:55–16:25 Femtoscopy of Light Nuclei at Colliders

Speaker
Stanislaw Mrowczynski

16:25–16:55 Discovering and Rediscovering the QCD Phase Transition

Speaker
Roy Lacey

16:55–17:25 Unraveling the Isospin Dependence of the EoS of Nuclear Matter

Speaker
Bill Lynch

17:25

Friday 22 July

09:00

Presentations: Chair: Shen (Yi/Soltz/Bilandzic)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

09:00–09:30 Recent developments on cost-efficient Bayesian emulation in Jetscape

Speaker
Irene Yi

09:30–09:55 Uncertainty Quantification with the Jetscape Framework

Speaker
Ron Soltz

09:55–10:20 New Paradigm in Anisotropic Flow Analyses with Correlation Techniques

Speaker
Ante Bilandzic

10:20

10:45

Presentations: Chair: Shen (Liyanage/Oliinychenko/Chbihi)

Session | Location: Facility for Rare Isotope Beams, 1300, 640 South Shaw Lane, East Lansing, MI 48824

10:45–11:10 Bayesian Parameter Estimation with Viscous Anisotropic Hydrodynamics Modeling

Speaker
Dan Liyanage

11:10–11:35 Sensitivity of Au+Au Collisions to EoS at 2-5 Normal Nuclear Density

Speaker
Dmytro Oliinychenko

11:35–12:00 Experimental Study of the Nuclear Equation of State

Speaker
Abdou Chbihi

12:00

14:00

Presentations: Chair Soltz: (Shen/Kim/Nzabahimana)

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14:00–14:25 Bayesian Inference of the Fluctuating Proton Shape

Speaker
Chun Shen

14:25–14:50 New Constraints of QCD Matter from Bayesian Parameter Estimation with LHC Data

Speaker
Dong Jo Kim

14:50–15:10 Low-Velocity Correlations of Alpha Particles

Speaker
Pierre Nzabahimana

15:10

15:35

Presentations: Chair: Soltz (Abdulrahman/Yao)

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15:35–16:00 **Beam Energy Dependence of Transverse Momentum and Flow Correlations at STAR**

Speaker
Niseem Abdulrahman

16:00–16:20
Constraining Nuclear Symmetry Energy from Converting Neutron Star EoS into HI Collisions

Speaker
Nanxi Yao

16:20–16:45 **Closeout**

Speaker
Scott Pratt

16:45