

WPCF 2023 - XVI Workshop on Particle Correlations and Femtoscopy & IV Resonance Workshop 2023

Monday, 6 November 2023 - Friday, 10 November 2023

Programme

Monday, 6 November 2023

Registrations: Registrations open (08:00 - 09:00)

Day 1 - Morning: Session 1 (09:00 - 10:55)

-Conveners: Bratkovskaya, Elena (GSI, Darmstadt & Frankfurt Uni.)

time	title	presenter
09:00	Welcome Address by S. Romano, Director of the Physics and Astronomy Department, UNiversity f Catania	ROMANO, Stefano (University of Catania & INFN-LNS)
09:15	Tre facce della stessa medaglia: Coalescence, Thermal Production and the Koonin Equation	PRATT, Scott (Michigan State)
09:40	Femtoscopy in heavy-ion collision experiments at various μ_B	ZBROSZCZYK, Hanna (Warsaw University of Technology)
10:05	Bose-Einstein correlations at LHCb	KUCHARCZYK, Marcin (Institute of Nuclear Physics PAN, Krakow, Poland)
10:30	Proton-proton and proton-cluster femtoscopy at the HADES experiment	STEFANIAK, Maria (The Ohio State University)

Coffee Break (10:55 - 11:20)

Day 1 - Morning: Session 2 (11:20 - 13:15)

-Conveners: Danielewicz, Pawel (Michigan State University)

time	title	presenter
11:20	Welcome address by the Director of the Laboratori Nazionali del Sud (LNS) of INFN, Santo Gammino	GAMMINO, Santo (INFN LNS)
11:35	Coulomb effects on pion spectra and HBT correlations at few GeV/A beam energies	GUMBERIDZE, Malgorzata (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))
12:00	A novel method for calculating Bose-Einstein correlation functions with Coulomb final-state interaction	NAGY, Marton (Eötvös University, Budapest)
12:25	Studying the low-energy scattering among hadrons using correlation techniques at the LHC	MIHAYLOV, Dimitar
12:50	Two-particle interferometry with Lévy-stable sources in $\sqrt{s_{NN}} = 200$ GeV Au+Au collisions at STAR	KINCSES, Daniel (Eotvos Lorand University)

Lunch (13:15 - 14:30)

Day 1 - Afternoon: Session 3 (14:30 - 16:25)

-Conveners: Greco, Vincenzo (Istituto Nazionale di Fisica Nucleare)

time	title	presenter
14:30	Exotic Spectroscopy at LHCb	LESIAK, Tadeusz
14:55	Microscopic Model for Quarkonia Production in Heavy-Ion collisions	AICHELIN, Joerg (SUBATECH)
15:20	Hadronic resonance production with ALICE at LHC	LIM, Bong-Hwi (Istituto Nazionale di Fisica Nucleare)

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15:45	Heavy flavour hadronization from AA to pp collisions	PLUMARI, Salvatore (Istituto Nazionale di Fisica Nucleare)
16:10	Charm and Bottom quarks dynamics in Heavy-Ion Collisions: anisotropic flows v_n and their correlations with Event-Shape Engineering technique.	SAMBATARO, Maria Lucia (Università degli Studi di Catania-INFN(LNS))

Coffee Break (16:25 - 16:55)**Day 1 - Afternoon: Session 4 (16:55 - 18:30)****-Conveners: Padula, Sandra (Sao Paulo State University (UNESP))**

time	title	presenter
16:55	Production of resonances in partial chemical equilibrium	TOMÁŠIK, Boris
17:20	Vector resonances as a probe of spin hydrodynamics	TORRIERI, Giorgio (State University of Campinas (Unicamp), Brasil)
17:45	Searches for the Chiral Magnetic Effect in Xe--Xe and Pb--Pb collisions with ALICE	DANU, Andrea (Institute of Space Science)
18:00	Flow and hyperon polarization at RHIC BES from multi-fluid dynamics	Dr KARPENKO, Iurii (FNSPE CTU in Prague)
18:15	Two-particle angular correlations of identified particles - recent developments and current status	GRACZYKOWSKI, Lukasz (Warsaw University of Technology)

Tuesday, 7 November 2023

Day 2 - Morning: Session 5 - Special Session on Stellar Intensity Interferometry (09:00 - 10:45)

-Conveners: Verde, Giuseppe (Istituto Nazionale di Fisica Nucleare)

time	title	presenter
09:00	Introduction to Stella Intensity Interferometry	LISA, Michael (Ohio State University)
09:05	An Angular Diameter Measurement of Merak via Stellar Intensity Interferometry with VERITAS	LISA, Michael (Ohio State University)
09:30	Stellar Intensity Interferometry at H.E.S.S.	VOGEL, Naomi
09:55	Intensity interferometry with optical telescopes: recent progress and future plans	GUERIN, William (Université Côte d'Azur)
10:20	Astronomical HBT interferometry: inside-out femtoscopy?	SAHA, Prasenjit (University of Zurich)

Coffee Break (10:45 - 11:15)

Day 2 - Morning: Session 6 (11:15 - 13:10)

time	title	presenter
11:15	Search for collective behavior in very small and in large colliding systems	Prof. PADULA, Sandra (Sao Paulo State University (UNESP))
11:40	Femtoscopy of $p - \Lambda$ system obtained in heavy-ion collision in the HADES experiment	RATHOD, Narendra (Warsaw University of Technology, Warsaw, Poland)
12:05	Forward correlations with the LHCb detector	BELIN, Samuel (Universidade de Santiago de Compostela (ES) IGFAE - LHCb)
12:30	Forward-backward correlations with the Σ quantity in the wounded-constituent framework at energies available at the CERN LHC	SPUTOWSKA, Iwona
12:55	Probing particle production and transport in small collision systems with ALICE	TARASOVICOVA, Lucia Anna (PJ Safarik University (SK))

Lunch (13:10 - 14:30)

Day 2 - Afternoon: Session 7 (14:30 - 16:15)

-Conveners: La Rocca, Paola (Istituto Nazionale di Fisica Nucleare)

time	title	presenter
14:30	Dineutron correlation in neutron drip-line nuclei	KUBOTA, Yuki (RIKEN Nishina Center)
14:55	On the long-standing quest for the tetra-neutron system: a recent observation of four-neutron correlations and future perspectives	PASCHALIS, Stefanos (University of York)
15:20	Perspectives on neutron detection and multi-neutron correlations measurements at FRIB	REVEL, Aldric (FRIB/Michigan State University)
15:45	NARCoS: a new correlator for neutrons and charged particles with high angular and energy resolution	PAGANO, Emanuele Vincenzo (Istituto Nazionale di Fisica Nucleare)

16:00	Geant4 simulations to study the efficiency and the cross-talk probability in the new neutron correlator NArCoS	SANTAGATI, Gianluca (Istituto Nazionale di Fisica Nucleare CT)
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Coffee (16:15 - 16:45)**Day 2 - Afternoon: Session 8 (16:45 - 18:45)**

time	title	presenter
16:45	Matter - antimatter interactions	JANIK, Malgorzata (Warsaw University of Technology)
17:10	Charged kaon and pion femtoscopy in the RHIC Beam Energy Scan at the STAR experimen	KHYZHNIAK, Yevheniia (Ohio State University)
17:35	Hidden puzzle of the correlation femtoscopy at the top RHIC and LHC energies and its possible solution	Dr SINYUKOV, Yuri
17:50	Non-equilibrium effects and sphericity in relativistic proton-nucleus collisions	OLIVA, Lucia (Istituto Nazionale di Fisica Nucleare)
18:15	Probing the dynamical evolution of QGP using charge-dependent correlations and fluctuations at CMS	Mr CHATTERJEE, Sayan (Indian Institute of Technology, Madras)
18:30	Flow correlations and flow-transverse momentum correlations at ALICE	ZHAO, Mingrui (China Institute of Atomic Energy)

Wednesday, 8 November 2023

Day 3 - Morning: Session 9 (09:00 - 10:40)

time	title	presenter
09:00	Investigating clustering in 12C using gamma-beams and a TPC detector	SMITH, Robin (Sheffield Hallam University)
09:25	Probing the 12C Hoyle state radius using double-excitation inelastic scattering	GRUYER, Diego (LPC Caen)
09:50	Proton-proton correlations in ground-state two-proton radioactivity	MAZZOCCHI, Chiara (University of Warsaw)
10:15	Three-body resonances and two-nucleon decays	CASAL, Jesús (University of Seville)

Coffee Break (10:40 - 11:10)

Day 3 - Morning: Session 10 (11:10 - 13:05)

time	title	presenter
11:10	Timing the hadronic rescattering phase with non-identical particle femtoscopy	KISIEL, Adam (Warsaw University of Technology)
11:35	First measurement of properties of strong interaction between (anti-)deuterons and charged kaons in Pb–Pb collisions with ALICE	RZEŃSA, Wioleta (Warsaw University of Technology)
12:00	Precise physics of atomic species utilizing antimatter	SOWINSKI, Tomasz (Institute of Physics, Polish Academy of Sciences)
12:25	Constraining the light (anti)nuclei production in and out of jets in small systems with ALICE	RASÀ, Marika (Istituto Nazionale di Fisica Nucleare)
12:40	Physics and Gender, few open questions	BRUNI, Alessia (Istituto Nazionale di Fisica Nucleare)

Lunch (13:05 - 14:30)

Day 3 - Afternoon: Session 11 (14:30 - 17:25)

time	title	presenter
14:30	Study of exotic f_0 and f_1 states with ALICE	BELLINI, Francesca (Istituto Nazionale di Fisica Nucleare)
14:55	Resonance production in the STAR experiment	NASIM, Mohammad (Indian Institute of Science Education and Research, Berhampur (IISER Berhampur))
15:20	In-medium effects in ϕ meson production in heavy-ion collisions from subthreshold to relativistic energies	BRATKOVSKAYA, Elena (GSI, Darmstadt & Frankfurt Uni.)
15:45	LHCb on technical aspects how to search and find resonances, also using AI techniques.	GANDINI, Paolo (Istituto Nazionale di Fisica Nucleare)
16:10	Measurement of azimuthal anisotropy of the $f_0(980)$ and D^0 mesons in heavy ion collisions at CMS	SAHA, Nihar Ranjan (Indian Institute of Technology, Madras (IN))
16:25	Measurement of azimuthal anisotropy at high $p_{\mathbf{T}}$ using subevent cumulants in pPb collisions at CMS	Mr SINGH, Rohit Kumar (Indian Institute of Technology Madras)

16:40 Evaluation of the thermal photon radiation from a recent solution of relativistic hydrodynamics

KASZA, Gábor (Wigner RCP & MATE KRC)

Thursday, 9 November 2023

Day 4 - Morning: Session 12 (09:00 - 10:45)

-Conveners: Badala', Angela (Istituto Nazionale di Fisica Nucleare)

time	title	presenter
09:00	Resonance production with EPOS4 and the role of collectivity in elementary collisions	WERNER, Klaus (Subatech)
09:25	Experimental highlights on collectivity in small collision systems	CALIVÀ, Alberto (University of Salerno)
09:50	Sources of multiparticle correlations – a microscopic perspective	BIERLICH, Christian (Lund University)
10:15	Investigating collective effects in small collision systems using PYTHIA8 and EPOS4 simulations	MANEA, Alexandru (Institute of Space Science)
10:30	Two-particle angular correlations of identified particles in pp and p-Pb collisions at LHC energies	RUGGIANO, Daniela (Warsaw University of Technology)

Coffee Break (10:45 - 11:15)

Day 4 - Morning: Session 13 (11:15 - 13:10)

-Conveners: Kisiel, Adam (Warsaw University of Technology)

time	title	presenter
11:15	Searching for Internal Pair Creation anomalies and the X17 boson at LNL.	MARCHI, Tommaso (INFN - LNL)
11:40	Searching for the X17 with the PADME experiment	FERRAROTTO, Fabio (Istituto Nazionale di Fisica Nucleare)
12:05	Dielectron measurements with ALICE	APPELSHÄUSER, Harald (University Frankfurt)
12:30	Photon-photon correlations in Ag+Ag collisions at $\sqrt{s_{NN}}=2.55$ GeV	GRUNWALD, Mateusz (Warsaw University of Technology)
12:55	Possibilities for phase and source function reconstruction in HBT correlations and in elastic proton-proton scattering	CSORGO, Tamas (Wigner RCP Budapest and MATE IoT KRC, Gyongyos, Hungary)

Lunch (13:10 - 14:30)

Day 4 - Afternoon: Session 14 (14:30 - 16:00)

time	title	presenter
14:30	Two-particle Bose-Einstein correlations and their Lévy parameters in PbPb collisions at 5.02 TeV	CSANAD, Mate (Eotvos Lorand University (ELTE))
14:55	Femtoscopy with Lévy sources at NA61/SHINE	PORFY, Barnabas (Eotvos University, Wigner RCP)
15:20	Spheroidal expansion and freeze-out geometry of heavy-ion collisions in the few-GeV energy regime	KOLAS, Jędrzej (Warsaw University of Technology)
15:45	Latest results on heavy flavor hadron anisotropic flow in the CMS experiment	GALLEGOS MARIÑEZ, Luis Gabriel (Universidad de Sonora)

Coffee Break (16:00 - 16:30)

Day 4 - Afternoon: Session 15 (16:30 - 17:45)

time	title	presenter
16:30	Entanglement Enabled Spin Interference	BRANDENBURG, Daniel (Ohio State University)
16:55	First characterization of Short-Range Correlations in an exotic nucleus at R3B	LAGNI, Andrea (CEA Saclay)
17:20	Correlation Functions and Signatures of Short-Range Correlations in collisions of intermediate energy projectiles	HAGEL, Kris (Cyclotron Institute, Texas A & M University)

Social Dinner (20:00 - 00:00)

Friday, 10 November 2023

Day 5 - Morning: Session 16 (09:00 - 10:40)

time	title	presenter
09:00	Non-identical femtoscopy in Au+Au collisions at $\sqrt{s_{NN}} = 3$ GeV in STAR	TRIPATHY, Srikanta (Warsaw Univ. of Technology, Poland)
09:25	Femtoscopic measurements from STAR to CBM	WIELANEK, Daniel (Warsaw University of Technology, Faculty of Physics)
09:50	Advanced coalescence model based on femtoscopy measurements	PINTO, Chiara (Technische Universitaet Muenchen (DE))
10:15	Correlation Function constraints on meson-baryon interaction from UChPT in S=-2 sector	VIDANA HARO, Isaac (Istituto Nazionale di Fisica Nucleare)

Coffee Break (10:40 - 11:10)

Day 5 - Morning: Session 17 (11:10 - 13:00)

-Conveners: Zbroszczyk, Hanna (Warsaw University of Technology)

time	title	presenter
11:10	Kinetic and potential mechanisms for deuteron production in HICs within the PHQMD transport approach	COCI, Gabriele (Istituto Nazionale di Fisica Nucleare)
11:35	Investigating strangeness enhancement via in-jet and medium production in p-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with ALICE	BLAIR, Justin (University of Texas at Austin)
12:00	Measurements of $pp, p\Lambda, p\Xi^0$ Correlation Functions at 3GeV Au+Au Collisions at RHIC-STAR	QIN, Zhi (Tsinghua University)
12:15	Femtoscopic correlations of lightest nuclei	MROWCZYNSKI, Stanislaw (National Centre for Nuclear Research, Warsaw, Poland)
12:30	Study of the three-body dynamics at short range via femtoscopy by ALICE at the LHC	VAZQUEZ DOCE, Oton (Istituto Nazionale di Fisica Nucleare)
12:45	Femtoscopic correlation studies between D0 mesons and charged hadrons in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV by STAR	ROY CHOWDHURY, Priyanka (Warsaw University of Technology)

Lunch (13:00 - 14:30)

Day 5 - Afternoon: Session 18 (14:30 - 16:05)

-Conveners: Aichelin, Joerg (SUBATECH)

time	title	presenter
14:30	Event-by-event Hadron Yield Fluctuations in Pb — Pb Collisions at $s_{NN} = 2.76$ TeV with ALICE	PRUNEAU, Claude (Wayne State University)
14:55	Correlation Function studies at intermediate energies at CSHINE	WANG, Yijie (Department of Physics, Tsinghua University)
15:20	The OSCAR correlator for low energy nuclear reactions and heavy-ion collisions	REDIGOLO, Luigi (Istituto Nazionale di Fisica Nucleare)
15:35	The pixelation technique applied to FARCOS correlator in the CHIFAR experiment	ZAGAMI, Cristina (Istituto Nazionale di Fisica Nucleare)

15:50 A Pixellation method for the FARCOS array

CARDELLA, Giuseppe (Istituto Nazionale di Fisica Nucleare)

Coffee Break (16:05 - 16:35)**Day 5 - Afternoon: Session 19 (16:35 - 18:30)****-Conveners: Vidana Haro, Isaac (Istituto Nazionale di Fisica Nucleare)**

time title

presenter

time	title	presenter
16:35	Deuteron-Xi correlation function studied with three-body model	FUKUI, Tokuro (Faculty of Arts and Science, Kyushu University)
17:00	Probing Equation of State of Dense Baryonic Matter with Heavy-Ion Collisions and Transport Simulations	DANIELEWICZ, Pawel (Michigan State University)
17:25	Source function from two-particle correlations via deblurring	NZABAHIMANA, Pierre
17:50	Kinetic approach for light-nuclei production in intermediate heavy-ion collisions	WANG, Rui (Istituto Nazionale di Fisica Nucleare)