

Internal workshop on Femtoscscopy for (anti)nuclei studies

Report of Contributions

Contribution ID: 1

Type: **not specified**

Seminar

Tuesday, 24 January 2023 11:00 (2 hours)

Presenter: MANTOVANI SARTI , Valentina

Contribution ID: 3

Type: **not specified**

Introduction: femtoscopy for the study of antinuclei

Monday, 23 January 2023 11:00 (10 minutes)

Presenter: BELLINI, Francesca (Istituto Nazionale di Fisica Nucleare)

Session Classification: Group discussion

Contribution ID: 4

Type: **not specified**

(Anti)nuclei at the LHC - overview of production measurements with Run1+2 data

Monday, 23 January 2023 11:10 (15 minutes)

Presenter: MALFATTORE, Giovanni (Istituto Nazionale di Fisica Nucleare)

Session Classification: Group discussion

Contribution ID: 5

Type: **not specified**

Status and perspective for measurements with Run 3 data

Monday, 23 January 2023 11:25 (15 minutes)

Presenter: JACAZIO, Nicolo' (Istituto Nazionale di Fisica Nucleare)

Session Classification: Group discussion

Contribution ID: 6

Type: **not specified**

Status of antinuclei measurements in Run 3

Monday, 23 January 2023 11:40 (15 minutes)

Presenter: RATH, Rutuparna (Istituto Nazionale di Fisica Nucleare)

Session Classification: Group discussion

Contribution ID: 7

Type: **not specified**

The proton source at the LHC - status and perspectives for measurements with Run3 data

Monday, 23 January 2023 11:55 (15 minutes)

Presenter: AGRAWAL, Neelima (Istituto Nazionale di Fisica Nucleare)

Session Classification: Group discussion

Contribution ID: 8

Type: **not specified**

Fitting the correlation functions using CATS

Monday, 23 January 2023 12:25 (35 minutes)

The analysis framework called “Correlation Analysis Tool using the Schrödinger equation” (CATS) computes the two-particle femtoscopy correlation function $C(k)$, with k being the relative momentum for the particle pair. Any local interaction potential and emission source function can be used as an input and the wave function is evaluated exactly. This tool has been applied to study the sensitivity of the correlation function to the interaction potential for different particle pairs (p - p , p - Λ , K^- - p , K^+ - p , p - Ξ^- and Λ - Λ ,...). Femtoscopic measurements as those performed by ALICE in recent years can be exploited in order to constrain the final state interactions among hadrons, with application to the study of nuclei formation mechanisms.

Presenter: MANTOVANI SARTI, Valentina (Technische Universität München)

Session Classification: Group discussion

Contribution ID: 9

Type: **not specified**

Discussion: Run 3 data analysis

Monday, 23 January 2023 15:00 (2 hours)

Session Classification: Group discussion

Contribution ID: **10**

Type: **not specified**

Fitting the correlation function with the Lednicky-Lyuboshitz model

Monday, 23 January 2023 12:10 (15 minutes)

Presenter: ROMANENKO, Gleb (Istituto Nazionale di Fisica Nucleare)

Session Classification: Group discussion