

# **XSCRC2019: Cross sections for Cosmic Rays @ CERN**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Final remarks

*Friday 15 November 2019 12:45 (15 minutes)*

Contribution ID: 2

Type: **not specified**

## Welcome to CERN (TBC)

*Wednesday 13 November 2019 14:00 (5 minutes)*

Contribution ID: 3

Type: **not specified**

## Welcome to the workshop

*Wednesday 13 November 2019 14:05 (10 minutes)*

**Presenter:** Prof. DONATO, Fiorenza (Torino University)

Contribution ID: 4

Type: **not specified**

## **Galactic cosmic-ray propagation and cross sections**

*Wednesday 13 November 2019 14:15 (30 minutes)*

**Presenter:** TOMASSETTI, Nicola (Perugia University & INFN- Perugia)

**Session Classification:** Introduction and motivations

Contribution ID: 5

Type: **not specified**

## Indirect detection of dark matter in CRs

*Wednesday 13 November 2019 15:15 (30 minutes)*

**Presenter:** CIRELLI, Marco (CNRS LPTHE Jussieu)

**Session Classification:** Introduction and motivations

Contribution ID: 6

Type: **not specified**

## Ranking of nuclear reactions for CR physics

*Wednesday 13 November 2019 16:15 (30 minutes)*

**Presenter:** GENOLINI, Yoann (LAPTh)

**Session Classification:** Relevant cross sections: present and desired precision

Contribution ID: 7

Type: **not specified**

## **Antiproton production cross sections**

*Wednesday 13 November 2019 16:45 (30 minutes)*

**Presenter:** KORSMEIER, Michael (University of Torino)

**Session Classification:** Relevant cross sections: present and desired precision



Contribution ID: 8

Type: **not specified**

## **Antideuteron and anti-helium cross sections**

*Wednesday 13 November 2019 17:40 (30 minutes)*

**Presenter:** GOMEZ CORAL, Diego Mauricio (University of Hawai'i at Manoa (US))

**Session Classification:** Relevant cross sections: present and desired precision

Contribution ID: 9

Type: **not specified**

## **The gamma-ray sky and impact of cross-section uncertainties**

*Wednesday 13 November 2019 14:45 (30 minutes)*

**Presenter:** Mr CASANDJAN, Jean-Marc

**Session Classification:** Introduction and motivations

Contribution ID: **10**

Type: **not specified**

## **Recent results on galactic cosmic rays with the AMS experiment.**

*Thursday 14 November 2019 09:00 (45 minutes)*

**Presenter:** OLIVA, Alberto (Centro de Investigaciones Energéticas Medioambientales y Tecnol)

**Session Classification:** CR experiments and data

Contribution ID: 11

Type: **not specified**

## **Recent results on galactic cosmic rays with the CALET experiment.**

*Thursday 14 November 2019 09:45 (30 minutes)*

**Presenter:** MARROCCHESI, Pier Simone (Universita degli studi di Siena (IT))

**Session Classification:** CR experiments and data

Contribution ID: 12

Type: **not specified**

## **GAPS status and physics goals**

*Thursday 14 November 2019 10:45 (30 minutes)*

**Presenter:** MUNINI, Riccardo (INFN - Universita Studi Trieste)

**Session Classification:** CR experiments and data

Contribution ID: 13

Type: **not specified**

## **Recent results on galactic cosmic rays with the DAMPE experiment.**

*Thursday 14 November 2019 10:15 (30 minutes)*

**Presenter:** WU, Xin (Universite de Geneve (CH))

**Session Classification:** CR experiments and data

Contribution ID: 14

Type: **not specified**

## **GEANT4, Models and links to cosmic rays, gamma rays, and accelerator physics**

*Thursday 14 November 2019 14:30 (45 minutes)*

**Presenter:** Prof. IVANTCHENKO, Vladimir (CERN)

**Session Classification:** Monte Carlo, event generators, and models

Contribution ID: 15

Type: **not specified**

## **CEM and LAQGSM event generators**

*Thursday 14 November 2019 15:15 (45 minutes)*

**Presenter:** Dr KERBY, Leslie (Center for Advanced Energy Studies)

**Session Classification:** Monte Carlo, event generators, and models



Contribution ID: 16

Type: **not specified**

## **Nuclear fragmentation measurements with NA61/SHINE – results and prospects**

*Friday 15 November 2019 08:50 (30 minutes)*

**Presenter:** UNGER, Michael (Karlsruhe Institute for Technology)

**Session Classification:** Particle physics experiments and data

Contribution ID: 17

Type: **not specified**

## **The COMPASS++/AMBER program for p-bar production cross-sections measurements**

*Friday 15 November 2019 09:20 (30 minutes)*

**Presenter:** ZUCCON, Paolo (Universita degli Studi di Trento è INFN (IT))

**Session Classification:** Particle physics experiments and data

Contribution ID: **18**

Type: **not specified**

## **Antiproton and charm production in proton-nucleus collisions with LHCb and prospects**

*Friday 15 November 2019 09:50 (45 minutes)*

**Presenter:** GRAZIANI, Giacomo (INFN, Sezione di Firenze (IT))

**Session Classification:** Particle physics experiments and data

Contribution ID: 19

Type: **not specified**

## **The GSI and FAIR facilities: Recent results and future perspectives**

*Friday 15 November 2019 11:30 (45 minutes)*

**Presenter:** RODRIGUEZ SANCHEZ, Jose Luis (University of Santiago de Compostela)

**Session Classification:** Nuclear physics facilities and data

Contribution ID: 20

Type: **not specified**

## **Fragmentation cross section measurements: possible synergies with nuclear dynamics and hadrontherapy studies**

*Friday 15 November 2019 12:15 (30 minutes)*

**Presenter:** Dr GRUYER, Diego (LPC Caen)

**Session Classification:** Nuclear physics facilities and data

Contribution ID: 21

Type: **not specified**

## **Uncertainties and relevance of photo-nuclear processes for UHECR propagation**

*Thursday 14 November 2019 16:30 (25 minutes)*

**Presenter:** BONCIOLI, Denise

**Session Classification:** Cross sections and Ultra-high energy CRs

Contribution ID: 22

Type: **not specified**

## **PANDORA project: measurement of nuclear photo-disintegrations for extragalactic propagation of UHECRs**

*Thursday 14 November 2019 16:55 (25 minutes)*

**Presenter:** Dr TAMII, Atsushi (Research Center for Nuclear Physics, Osaka University)

**Session Classification:** Cross sections and Ultra-high energy CRs

Contribution ID: 23

Type: **not specified**

## **Proton-oxygen cross sections, the muon puzzle, and possibilities to solve it**

*Thursday 14 November 2019 17:20 (25 minutes)*

**Presenter:** Dr DEMBINSKI, Hans Peter (Max-Planck-Institute for Nuclear Physics, Heidelberg)

**Session Classification:** Cross sections and Ultra-high energy CRs



Contribution ID: 24

Type: **not specified**

## **AMS-02 antiprotons are consistent with a secondary astrophysical origin**

*Wednesday 13 November 2019 17:15 (25 minutes)*

**Presenter:** Dr BOUDAUD, Mathieu (LPTHE Paris)

**Session Classification:** Relevant cross sections: present and desired precision

Contribution ID: 25

Type: **not specified**

## **Recent results on nuclei and antinuclei production in ALICE at the LHC**

*Friday 15 November 2019 10:35 (25 minutes)*

**Presenter:** COLOCCI, Manuel (Universita e INFN, Bologna (IT))

**Session Classification:** Particle physics experiments and data

Contribution ID: 26

Type: **not specified**

**TBD**

**Session Classification:** CR experiments and data

Contribution ID: 27

Type: **not specified**

**TBD**

**Session Classification:** CR experiments and data

Contribution ID: **28**

Type: **not specified**

**TBD**

**Session Classification:** CR experiments and data

Contribution ID: 29

Type: **not specified**

## **Cross section measurements with AMS-02**

*Thursday 14 November 2019 11:45 (30 minutes)*

**Presenter:** YAN, Qi (Massachusetts Inst. of Technology (US))

**Session Classification:** Nuclear cross sections and related topics

Contribution ID: **30**

Type: **not specified**

## **Cosmogenic nuclide production in meteoroids and planetary atmospheres**

*Thursday 14 November 2019 12:40 (30 minutes)*

**Presenter:** HIRTZ, Jason

**Session Classification:** Nuclear cross sections and related topics

Contribution ID: 31

Type: **not specified**

## **MCMC study of propagation diffusion parameters of cosmic rays from the ratios of boron, lithium and beryllium to carbon and oxygen**

*Thursday 14 November 2019 12:15 (25 minutes)*

**Presenter:** DE LA TORRE LUQUE, Pedro (Bari University & INFN)

**Session Classification:** Nuclear cross sections and related topics



Contribution ID: 33

Type: **not specified**

## "Revisiting $\gamma\gamma$ absorption for UHE photons

*Thursday 14 November 2019 17:45 (20 minutes)*

**Presenter:** GALANTI, Giorgio (INAF, Osservatorio Astronomico di Brera)

**Session Classification:** Cross sections and Ultra-high energy CRs