

# **Light Anti-Nuclei as a Probe for New Physics (LAN2019)**

## **Report of Contributions**

Contribution ID: 2

Type: **not specified**

## **Observations of cosmic-rays and search for anti-nuclei with AMS-02**

*Monday 14 October 2019 14:20 (40 minutes)*

**Author:** Dr OLIVA, Alberto (Centro de Investigaciones Energéticas Medioambientales y Tecnológicas)

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

**Session Classification:** Experimental Searches for Antinuclei: New Results and projects

Contribution ID: 3

Type: **not specified**

## **Experimental searches for cosmic ray antinuclei with GAPS.**

*Monday 14 October 2019 15:30 (40 minutes)*

**Author:** VON DOETINCHEM, Philip (University of Hawaii at Manoa)

**Presenter:** VON DOETINCHEM, Philip (University of Hawaii at Manoa)

**Session Classification:** Experimental Searches for Antinuclei: New Results and projects

Contribution ID: 4

Type: **not specified**

## **Perspectives for Anti-Deuteron identification in cosmic rays with an Helium-based detector**

*Monday 14 October 2019 16:10 (40 minutes)*

**Author:** NOZZOLI, Francesco (Universita degli Studi di Trento è INFN (IT))

**Presenter:** NOZZOLI, Francesco (Universita degli Studi di Trento è INFN (IT))

**Session Classification:** Experimental Searches for Antinuclei: New Results and projects

Contribution ID: 5

Type: **not specified**

## **Future large acceptance experiments of cosmic-ray and antimatter detection in space**

*Monday 14 October 2019 16:50 (40 minutes)*

**Author:** DURANTI, Matteo (Universita e INFN, Perugia (IT))

**Presenter:** DURANTI, Matteo (Universita e INFN, Perugia (IT))

**Session Classification:** Experimental Searches for Antinuclei: New Results and projects

Contribution ID: 6

Type: **not specified**

## Sources of antimatter

*Tuesday 15 October 2019 09:00 (1 hour)*

**Author:** SALATI, PIERRE (Université de Savoie & CNRS)

**Presenter:** SALATI, PIERRE (Université de Savoie & CNRS)

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies

Contribution ID: 7

Type: **not specified**

## Light Antinuclei from Dark Matter

*Tuesday 15 October 2019 10:30 (1 hour)*

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

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

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies

Contribution ID: 8

Type: **not specified**

## **New Era in the Quest for Dark Matter**

*Tuesday 15 October 2019 11:30 (30 minutes)*

**Author:** BERTONE, Gianfranco

**Presenter:** BERTONE, Gianfranco

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies



Contribution ID: 9

Type: **not specified**

## **Cosmic ray $e^\pm$ at high energy: a local and recent origin for TeV cosmic-rays?**

*Tuesday 15 October 2019 14:00 (30 minutes)*

**Author:** BUCHHOLZ, Annika

**Presenter:** BUCHHOLZ, Annika

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies

Contribution ID: 10

Type: **not specified**

## Scrutinizing the evidence for dark matter in cosmic-ray antiprotons

*Tuesday 15 October 2019 14:30 (30 minutes)*

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

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

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies

Contribution ID: 11

Type: **not specified**

## **Antideuteron and antihelium: sources and discovery potential**

*Tuesday 15 October 2019 15:30 (30 minutes)*

**Author:** HERMS, Johannes (TU Munich)

**Presenter:** HERMS, Johannes (TU Munich)

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies

Contribution ID: 12

Type: **not specified**

## **Progress report on antideuteron search with the Alpha Magnetic Spectrometer on the ISS**

*Tuesday 15 October 2019 16:00 (30 minutes)*

**Author:** LU, Senquan (Academia Sinica (TW))

**Presenter:** LU, Senquan (Academia Sinica (TW))

**Session Classification:** Sources of Antinuclei: from Dark Matter to anti galaxies

Contribution ID: 13

Type: **not specified**

## **Transport and interactions of cosmic rays in the Galaxy**

*Wednesday 16 October 2019 09:00 (1 hour)*

**Author:** MAURIN, David Alain (Centre National de la Recherche Scientifique (FR))

**Presenter:** MAURIN, David Alain (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Antinuclei transport in the Galaxy and in the Heliosphere

Contribution ID: 14

Type: **not specified**

## Propagation of cosmic rays in the Heliosphere

*Wednesday 16 October 2019 10:30 (1 hour)*

**Author:** ENGELBRECHT, Nicholas Eugene (SANSa)

**Presenter:** ENGELBRECHT, Nicholas Eugene (SANSa)

**Session Classification:** Antinuclei transport in the Galaxy and in the Heliosphere

Contribution ID: 15

Type: **not specified**

## **Particles and antiparticles in the Heliosphere: recent measurements and modeling.**

*Wednesday 16 October 2019 11:30 (30 minutes)*

**Author:** Dr DI FELICE, Valeria (Universita e INFN, Perugia (IT))

**Presenter:** Dr DI FELICE, Valeria (Universita e INFN, Perugia (IT))

**Session Classification:** Antinuclei transport in the Galaxy and in the Heliosphere

Contribution ID: 16

Type: **not specified**

## **A new charge-sign dependent model of cosmic-ray modulation**

*Wednesday 16 October 2019 14:00 (30 minutes)*

**Author:** KUHLEN, Marco

**Presenter:** KUHLEN, Marco

**Session Classification:** Antinuclei transport in the Galaxy and in the Heliosphere



Contribution ID: 17

Type: **not specified**

## **Breakout session 1: The coalescence model in a nutshell**

*Wednesday 16 October 2019 14:30 (30 minutes)*

**Author:** KACHELRIESS, Michael (Unknown)

**Presenter:** KACHELRIESS, Michael (Unknown)

**Session Classification:** Antinuclei transport in the Galaxy and in the Heliosphere

Contribution ID: 18

Type: **not specified**

## **A closer look at secondary antiproton production in cosmic rays and its impact on dark matter indirect searches**

*Wednesday 16 October 2019 15:30 (30 minutes)*

**Author:** VITTINO, Andrea (RWTH Aachen University)

**Presenter:** VITTINO, Andrea (RWTH Aachen University)

**Session Classification:** Antinuclei transport in the Galaxy and in the Heliosphere

Contribution ID: **19**

Type: **not specified**

## **Cross-Sections for antinuclei.**

*Thursday 17 October 2019 09:00 (1 hour)*

**Author:** KACHELRIESS, Michael (Unknown)

**Presenter:** KACHELRIESS, Michael (Unknown)

**Session Classification:** Antinuclei production cross-sections

Contribution ID: 20

Type: **not specified**

## Antinuclei Production

*Thursday 17 October 2019 10:30 (1 hour)*

**Author:** SHARMA, Natasha (Panjab University (IN))

**Presenter:** SHARMA, Natasha (Panjab University (IN))

**Session Classification:** Antinuclei production cross-sections

Contribution ID: 21

Type: **not specified**

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

*Thursday 17 October 2019 11:30 (30 minutes)*

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

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

**Session Classification:** Antinuclei production cross-sections

Contribution ID: 22

Type: **not specified**

## **Breakout session 2, Standard Cosmological Model in a nutshell.**

*Thursday 17 October 2019 14:00 (30 minutes)*

**Author:** POULIN, Vivian (LAPTh, Annecy-le-vieux)

**Presenter:** POULIN, Vivian (LAPTh, Annecy-le-vieux)

**Session Classification:** Antinuclei production cross-sections

Contribution ID: 23

Type: **not specified**

## **Production and acceleration of antinuclei in SNR shockwaves**

*Thursday 17 October 2019 14:30 (30 minutes)*

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

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

**Session Classification:** Antinuclei production cross-sections

Contribution ID: 24

Type: **not specified**

## **Cross-section measurements for cosmic-ray antinuclei interpretation.**

*Thursday 17 October 2019 15:30 (30 minutes)*

**Author:** VON DOETINCHEM, Philip (University of Hawaii at Manoa)

**Presenter:** VON DOETINCHEM, Philip (University of Hawaii at Manoa)

**Session Classification:** Antinuclei production cross-sections



Contribution ID: 25

Type: **not specified**

## **Antimatter in cosmology.**

*Friday 18 October 2019 09:00 (1 hour)*

**Author:** POULIN, Vivian (LAPTh, Annecy-le-vieux)

**Presenter:** POULIN, Vivian (LAPTh, Annecy-le-vieux)

**Session Classification:** Cosmology, antimatter, new physics searches

Contribution ID: 26

Type: **not specified**

## **Primordial Antimatter as a Probe of Cosmology and Fundamental Physics.**

*Friday 18 October 2019 10:30 (30 minutes)*

**Author:** DREWES, Marco (Universite Catholique de Louvain (UCL) (BE))

**Presenter:** DREWES, Marco (Universite Catholique de Louvain (UCL) (BE))

**Session Classification:** Cosmology, antimatter, new physics searches

Contribution ID: 27

Type: **not specified**

## **Primordial black holes as a probe for new physics**

*Friday 18 October 2019 11:00 (30 minutes)*

**Author:** COOGAN, Adam (University of Amsterdam)

**Presenter:** COOGAN, Adam (University of Amsterdam)

**Session Classification:** Cosmology, antimatter, new physics searches

Contribution ID: 28

Type: **not specified**

## **Final discussion and conclusions of the week**

*Friday 18 October 2019 11:30 (30 minutes)*

Contribution ID: 29

Type: **not specified**

## **Open for discussions, follow-up activities, collaborations**

*Friday 18 October 2019 14:00 (3 hours)*