

Frontier research in astrophysics and particle physics

**MASTER'S DEGREE IN PARTICLE PHYSICS AND PHYSICS OF
THE COSMOS**

UNIVERSIDAD INTERNACIONAL MENÉNDEZ PELAYO

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GENERAL DATA

Name

Frontier research in astrophysics and particle physics

Code

102445

Academic year

2020-21

Degree

[MASTER'S DEGREE IN PARTICLE PHYSICS AND PHYSICS OF THE COSMOS](#)

ECTS Credits

3

Type

MANDATORY

Duration

Cuatrimestral

Language

FACULTY

Coordinator/s

Vielva Martínez, Patricio

*Científico Titular del CSIC.
Instituto de Física de Cantabria (IFCA), CSIC-UC*

Lecturers

Martín Carrillo, Antonio

*Assistant Professor in Astrophysics
University College Dublin*

Domcke , Valerie

CERN, EPFL

Gómez Gramuglio, Gervasio

*Científico Titular del CSIC.
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Estrada Vigil, Juan Cruz

*Doctor en Física
Sr. Scientists, Astrophysics Department
Fermi National Accelerator Laboratory*

Kavanagh , Bradley James

Instituto de Física de Cantabria (Universidad de Cantabria/CSIC)

Sánchez Álvaro, Eusebio

*Investigador Científico de OPI
CIEMAT*

Coloma Escribano, María del Pilar

*Investigador Ramón y Cajal
Instituto de Física Teórica UAM/CSIC*

Bulbul , Esra

Max Planck Insitute for extraterretrial Physics

Heinemeyer , Sven

*Profesor de Investigador
Instituto de Fisica Teorica (IFTE), CSIC-UAM*

Bonomi , Germano

*PROFESSORE ORDINARIO (FULL PROFESSOR)
UNIVERSITA' DEGLI STUDI DI BRESCIA*

SCHEDULE

Timetable

21/12/2020

11:45 - 13:45

Applications of cosmic ray muons

Germano Bonomi

PROFESSORE ORDINARIO (FULL PROFESSOR)
UNIVERSITA' DEGLI STUDI DI BRESCIA

08/01/2021

11:45 - 13:45

Gamma-Ray Bursts and Gravitational Waves: Playing detective with the Universe

Antonio Martín Carrillo

Assistant Professor in Astrophysics
University College Dublin

08/02/2021

11:45 - 13:45

Unveiling the hot baryons in the largest cosmic structure

26/02/2021

17:00 - 19:00

Dark Matter below the mass of the proton

Juan Cruz Estrada Vigil

Doctor en Física
Sr. Scientists, Astrophysics Department
Fermi National Accelerator Laboratory

19/04/2021

11:45 - 13:45

Galaxy surveys for cosmology

Eusebio Sánchez Álvaro

Investigador Científico de OPI
CIEMAT

30/04/2021

11:45 - 13:45

Dark Science with Clusters of Galaxies

Esra Bulbul

Max Planck Insitute for extraterretrial Physics

07/05/2021

11:45 - 13:45

Why the Standard model is not enough?

Sven Heinemeyer

Profesor de Investigador
Instituto de Fisica Teorica (IFTE), CSIC-UAM

10/05/2021

11:45 - 13:45

Gravitational Waves and Early Universe physics, especially Leptogenesis and Baryogenesis

Valerie Domcke

CERN, EPFL

14/05/2021

11:45 - 13:45

Introduction to neutrino physics

María del Pilar Coloma Escribano

Investigador Ramón y Cajal
Instituto de Física Teórica UAM/CSIC

31/05/2021

10:30 - 12:30

Can the Dark Matter in the Universe be Black Holes?

Bradley James Kavanagh

Instituto de Física de Cantabria (Universidad de Cantabria/CSIC)

21/06/2021

10:00 - 12:00

Presentación de Trabajos

Patricio Vielva Martínez

Científico Titular del CSIC.
Instituto de Física de Cantabria (IFCA), CSIC-UC

22/06/2021

10:00 - 12:00

Presentación de Trabajos

Gervasio Gómez Gramuglio

Científico Titular del CSIC.
Instituto de Física de Cantabria (IFCA), CSIC-UC