







INTERNATIONAL SCHOOL OF SPACE SCIENCE

IL MIO VOLER CERCAR OLTRE LA META L'Aquila – ITALY

The Dark Side of the Universe

18-22 June 2018, L'Aquila (Italy)

Programme and Lecturers

EXPLAINING THE DARK UNIVERSE: THEORY

L. Amendola (University of Heidelberg, Germany) The Accelerated Universe

F. Perrotta (Sissa, Trieste, Italy) CMB - Planck Results

M. Cobal (University of Udine, INFN-Trieste & Udine, Italy) The Standard Model of Particle Physics

S. Resconi (INFN-Milano, Italy) Physics of Dark Matter Candidates

HARASSING THE DARK UNIVERSE: ALL PROBES

R. Battiston (Agenzia Spaziale Italiana, Italy) *Messages from Cosmic Rays*

A. De Angelis (University of Udine, INFN-Trieste & Udine, Italy) High Energy Cosmic Rays and Neutrinos

E. Branchini (University of Roma Tre, Italy) A Review of DE Projects

K. Schaeffner (GSSI and LNGS, Italy) Results from Underground Gran Sasso Experiments

BOARD OF DIRECTORS:

A. Gregorioanna.gregorio@ts.infn.itUniversity of Trieste, INFN-Trieste, ItalyB. Garillibianca@lambrate.inaf.itINAF-IASF Milano, ItalyY. Melliermellier@iap.frInstitut d'Astrophysique de Paris, Observatoire de Paris, France

THE DIRECTOR OF THE SCHOOL:

U. Villante umberto.villante@aquila.infn.it

GENERAL INFORMATION

School activities will be held at Gran Sasso Science Institute in L'Aquila (http://www.gssi.infn.it). Applications, including a brief curriculum vitae, are due

before February 25th, 2018 through the website www.cifs-isss.org/application.asp

The fee of **800 Euro** includes board and lodging at nearby hotels.

Some financial support will be available for a limited number of students.

Students are encouraged to present their own contributions

PROBING THE DARK UNIVERSE: THE EUCLID MISSION

L. Amendola (University of Heidelberg, Germany) Physics, Astrophysics of (and with) Euclid Cosmological Probes

L. Guzzo (University of Milano, Italy) Euclid: Science Drivers and Requirements I

H. Hoekstra (Leiden Observatory, Netherlands) Euclid: Science Drivers and Requirements II

R. Laureijs (ESA Noordwijk, Netherlands) *The Euclid Mission*

B. Garilli (INAF-IASF Milano, Italy) The Euclid Satellite and Payload

A. Gregorio (University of Trieste, INFN-Trieste, Italy) The Euclid Science Space and Ground Segment

A SPECIAL OPEN SESSION WILL BE DEDICATED TO ORAL/POSTER CONTRIBUTIONS FROM THE STUDENTS



in an open session. Applications will be evaluated by the Scientific Committee of the International School of Space Science. Successful applicants will be notified by e-mail.

SCHOOL RATIONALE

The course is designed for PhD students and young post-doctoral researchers and will offer an overview of current knowledge of the content of the Universe with special regards to the unknown Dark Universe. The physical problems will be treated from the theoretical and experimental points on view. Special emphasis will be given to observations with space-borne instruments and the next generation ESA space mission: Euclid. The connection with the most important space missions of the past, present and future will be presented. in volume and in the second seco

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