
* FIRST ANNOUNCEMENT *

Dear Colleagues,

we are pleased to announce the conference “**Probing the Universe with Multi-Messenger Astronomy**” (PUMA2020, in short), which will be held in Sestri Levante (GE), Italy, from September 28th to October 2nd, 2020.

The conference is organized by INFN-Sezione di Genova and the Department of Physics of the University of Genova. It aims at collecting an overview of the status and future prospects of astrophysics and cosmology exploiting a multi-messenger approach. The conference will feature only plenary sessions that will deal with astrophysics with electromagnetic waves, astrophysics with gravitational waves, astroparticle physics and neutrino astrophysics, nuclear astrophysics, cosmology.

The scientific program will be organized in several sessions including invited reviews, contributed talks, posters and ample time for discussion. Sessions and talks will be organized according to astrophysical sources and phenomena: active galactic nuclei, neutron star mergers, supernovae, CMB, etc..., highlighting the current status of the knowledge and the benefit of a multi-messenger approach.

*** MAIN TOPICS***

Cosmology in the era of multi-messenger astrophysics; Cosmic Microwave Background Radiation; Active galactic nuclei; Compact objects and multiple systems; Supernova explosions and supernova remnants; X-ray bursts; Astrophysics measurements with radioactive beams; Galactic archeology, nucleosynthesis; Magnetars; Very high energy cosmic rays; Physics prospects of future experiments and facilities (Ska, ELT, Km3Net, Lisa, CTA, Einstein Telescope, future underground facilities...).

*** SCIENTIFIC ORGANIZING COMMITTEE ***

The scientific committee is composed by:

- Marialuisa Aliotta, Edinburgh University (UK)
- Laura Cadonati, Georgia Institute of Technology (USA)
- Paschal Coyle, CPPM Marseille (France)
- Luigi Guzzo, University of Milan (Italy)
- Giovanni Losurdo, INFN-Pisa (Italy)
- Maria Lugaro, Konkoly Observatory, Budapest (Hungary)
- Aldo Serenelli, Institute of Space Sciences, Barcelona (Spain)
- Silvano Tosi, University of Genova and INFN-Genova (Italy)
- Filippo Maria Zerbi, INAF-Osservatorio di Brera (Italy)

*** LOCAL ORGANIZING COMMITTEE ***

The local organizing committee is composed by:

Michele Biasotti, Gianangelo Bracco, Lorenzo Cabona, Alessio Caminata, Maurizio Canepa (director of the Physics Department of Genova), Andrea Chincarini, Stefano Davini, Alba Domi, Federico

Ferraro, Gianluca Gemme, Vladimir Kulikovskiy, Andrea La Camera, Nicola Maggiore, Davide Ricci, Chiara Righi, Matteo Sanguineti, Elena Santopinto, Mauro Taiuti (director of INFN-Genova), Gemma Testera, Silvano Tosi, Sandra Zavatarelli

*** CONFERENCE VENUE, ACCOMODATION ***

The conference will take place in the Grand Hotel dei Castelli in Sestri Levante (<https://www.hoteldeicastelli.it/en/home>)

Sestri Levante is located about 50 km to the east of Genova. It can be easily reached by plane (nearest airport Genova, but also Pisa and Milan are not far away) and then by train. Most long distance intercity trains stop in Sestri Levante (please check the Trenitalia website <https://www.trenitalia.com/en.html>).

Sestri Levante is a nice touristic spot: it features several kinds of accommodation, from top class hotels to various bed and breakfast facilities. Please, book your accommodation as soon as you can.

*** REGISTRATION and FEE ***

The conference registration fee is 350 EUR (that includes coffee breaks, the events of the social program and the prize for the best poster). The registration will open in February 2020; the deadline for registration is August 31st 2020. For students, the fee is reduced to 270 EUR if the registration is completed by June 15th 2020 (and 350 EUR after that date).

*** FURTHER INFORMATION ***

The first draft of the webpage is:

<https://agenda.infn.it/event/18651/>

It will be updated regularly.

The call for contributions (talks and posters) will open in February 2020; the selection of the contributions will be confirmed in May 2020.

For any information, you can also contact the local organizing committee at confastro2020@ge.infn.it

Please forward the announcement to anyone who may be interested!

We are looking forward to seeing you in Sestri Levante in September 2020!

The organizing committee