



IWM-EC 2024

International Workshop on Multi-facets of Equation of State and Clustering

FINAL CIRCULAR

We are pleased to announce that the *International Workshop on Multi-facets of Equation of State and Clustering* IWM-EC 2024 will be held in Catania, Italy, from May 21st to 24th, 2024. The workshop is supported by the CHIMERA and INDRA-FAZIA collaborations.

SCIENTIFIC PROGRAM AND FORMAT

IWM-EC 2024 will address open questions in the domain of nuclear dynamics and thermodynamics with a special emphasis on the nuclear Equation of State in connection with Astrophysics and clustering phenomena, with implications on nuclear dynamics and structure. The scientific program will have dedicated sessions to outline recent progress on both experimental and theoretical aspects of the following topics:

- Nuclear dynamics from fission to multifragmentation
- Isospin effects and Symmetry energy in nuclear reactions
- Clustering phenomena and multi-particle decay
- Nuclear Equation of State and multi-messenger astronomy
- New Developments in detection techniques and facilities

The format of the workshop includes invited overview talks, oral presentations, and posters. PhD students and post-docs are strongly encouraged to participate.

Moreover, a Round Table on the "Future Radioactive Ions Beams Facilities: challenges and opportunities" is planned; the round table will focus on the status and the opportunities of the main new or improved facilities of interest for our community (GSI-MSU-LNL-LNS).

INVITED SPEAKERS

Kyle Brown , Michigan State University, USA

Symmetry energy studies via heavy-ion collisions at NSCL and future perspectives at FRIB

Stefano Burrello, INFN-Laboratori Nazionali del Sud, Italy

Description of many-body correlations and clustering phenomena within a unified theoretical scheme

Dan Cozma, IFIN-HH, Romania

EoS of nuclear matter above saturation density from intermediate energy heavy-ion collision

Enrico De Filippo, INFN-Sezione di Catania, Italy

Recent highlights from CHIMERA

Diego Gruyer, LPC Caen, France

Recent highlights from INDRA-FAZLA

Seung-Woo Hong, Institute for Basic Science, Republic of Korea

Status of RAON

Andrea Jedele, GSI, Germany

Quantifying Neutron-Proton Equilibration using Molecular Dynamics Codes

Arnaud Le Fevre, GSI, Germany

Nuclear equation-of-state and multi-messenger astronomy: contribution of heavy-ion collisions

Yvonne Leifel, GSI, Germany

Physics opportunities at FAIR

Christelle Schmitt, IPHC Strasbourg, France

New insights into fission from recent experiments: What drives fission across the nuclear chart?

Juzo Zenihiro, Kyoto University, Japan

Recent activities about ESPRI/ONOKORO.

ROUND TABLE

"Future Radioactive Ions Beams Facilities: challenges and opportunities"

Moderator:

Giuseppe Verde, INFN-Sezione di Catania, Italy

Speakers:

Kyle Brown, Michigan State University, USA

Tommaso Marchi, INFN- LNL, Italy

Chiara Nociforo, GSI, Germany

Paolo Russotto, INFN – LNS, Italy

SCIENTIFIC CONTRIBUTIONS

Oral and poster presentations have been selected by the Scientific Committee, among the submitted abstracts. A dedicated session will be devoted to poster presentations on 21st May in the evening, and thereafter posters will remain on display throughout the entire duration of the workshop.

All contributions, including posters, will be published in the workshop proceedings.

GENERAL INFORMATION

IWM-EC2024 will take place at the Department of Physics and Astronomy “Ettore Majorana” and INFN-Sezione di Catania, and at INFN-Laboratori Nazionali del Sud.

The workshop will last four days, beginning in the morning of Tuesday, May 21st, and ending on Friday noon, May 24th. It will be held from May 21st to 23rd in Aula Migneco of LNS and on May 24th in the Aula Conferenze of the Department of Physics and Astronomy “Ettore Majorana” (Ground Floor).

The local organization of the workshop is supported by INFN and University of Catania and sponsored by Società Italiana di Fisica.

REGISTRATION

Anyone wishing to attend the workshop is invited to register before May 6th 2024 on the conference website. The workshop registration fee is 250€, including coffee breaks, lunches, social dinner, and a copy of the workshop proceedings. The fee can be paid on site in cash or by bank transfer on the website before May 17th 2024. Participants using INFN funds can pay by using “internal fund transfer (*storno*)”, organized between the local administration offices. There will be no fee for undergraduate and PhD

students. A certificate of attendance will be issued. For more information visit the website or write to iwm-ec2024@ct.infn.it

In the late afternoon of Wednesday 22nd a Tour of Catania historic district in the city center (Monastero dei Benedettini, Via Crociferi, Piazza Duomo) will be proposed/organized for the conference attendees; since places are limited it is recommended to book the Catania tour during the conference registration. The social dinner will take place in the evening of Wednesday 22nd, in a venue close to Piazza Duomo. The conference site (Cittadella Universitaria/University Campus) can be reached by bus (i.e. BRT1, an express line) or by metro and shuttle bus (more details on the [web page](#)).

For this reason, accommodation in Catania city center can be a good option, where most hotels and B&B, as well as restaurants and stores, are located. The most suitable hotels are those located near the BRT1 bus stops, more specifically those near Via Etnea, between "Piazza Stesicoro" and "Viale XX Settembre".

We strongly recommend that you complete the registration on the conference website as soon as possible and look forward to seeing you in Catania.

Scientific Committee

Jose Benlliure, University Santiago de Compostela, Spain

Eric Bonnet, SUBATECH, Nantes, France

Alberto Camaiani, University of Firenze and INFN - Sezione di Firenze, Italy

Zbigniew Chajeccki, Western Michigan University, USA

Gargi Chaudhuri, VECC, India

Beatriz Fernandez Dominguez, University Santiago de Compostela, Spain

Elena Geraci, University of Catania and INFN - Sezione di Catania, Italy

Sunji Kim, Institute for Basic Science, Republic of Korea

Emanuele V. Pagano, INFN - LNS, Catania, Italy

Sara Pirrone, INFN- Sezione di Catania, Italy

Local Organizing Committee

Gaetano Agnello, INFN-LNS Catania

Micaela Colombo, INFN-Sezione di Catania

Brunilde Gnoffo, University of Catania

Nancy Martorana, INFN-Sezione di Catania

Giuseppe Politi, University of Catania and INFN-Sezione di Catania

Fabio Risitano, University of Messina and INFN-Sezione di Catania

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Gianluca Santagati, INFN-Sezione di Catania

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