## Colloquia: IWM-EC 2024

## **Preface**

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This volume includes most of the contributions presented at the fifth edition of the IWM-EC International Workshop on Multi facets of EoS and Clustering, held in May 2024 at INFN, Laboratori Nazionali del Sud and Sezione di Catania and at Department of Physics and Astronomy "Ettore Majorana" in Catania, Italy.

This workshop, organized about every two years alternately in France and Italy, follows a long tradition of conferences organized by CHIMERA and INDRA Collaborations in the past years and focuses on the more recent experimental and theoretical achievements in the field of heavy-ions physics, related to fragmentation and clustering phenomena. A large variety of traditional topics together with some new subjects were thus explored thanks to a rich scientific program, keeping connection and continuity with the previous editions and at the same time following the current and future interests in the field.

The workshop was attended by around 80 people coming from many countries, with a strong presence of graduate and PhD students. Several general talks and various oral contributions presented new exciting results, sophisticated theoretical calculations as well as recent developments in the experimental devices, illustrating the state of the art of the research in this field.

In the framework of the workshop, a round table, devoted to "Future Radioactive Ions Beams Facilities: Challenges and Opportunities", was also organized.

The enthusiasm of all participants and the lively discussions showed a fertile and active research field, operating towards the achievement of new ideas and results. We hope that this volume will transmit the same enthusiasm and interest in these exciting issues which characterized the workshop to the readers.

During the preparation of this volume, our community was deeply shocked by a sad news: Dr Angelo Pagano (INFN, Sezione di Catania), one of the founders of the IWM-EC conference, passed away. Angelo was one of the pillars of the community of nuclear physics at Fermi energies; his invaluable talent in designing experiments and complex detector arrays gave birth to the CHIMERA multi-detector and to many successful experimental campaigns supported by his enthusiasm and passion. We will terribly miss Angelo and we would like to dedicate this volume to his memory.