

Preface

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The XVIII edition of the IFAE meeting (Incontri di Fisica delle Alte Energie) was organized by the Naples INFN Unit and the Physics Department “Ettore Pancini” of the University of Naples Federico II.

It took place in the Centro Congressi Partenope of the Federico II University of Naples, located in Via Partenope 36, Napoli. Via Partenope is on the Naples seaside close to the historic district “Borgo Marinari” and Via Santa Lucia, Castel dell’Ovo and Piazza del Plebiscito. 170 people participated in the meeting, attending presentations on particle physics topics. In the talks of the opening session Marumi Kado (Roma La Sapienza) described present and future physics at Atlas and CMS and Michelangelo Mangano (CERN) discussed physics perspectives at future colliders. The traditional sessions followed: Cosmology and Astroparticles, the Energy Frontier, the Intensity Frontier, and the New Technologies Frontier. The closing talks were by Roberto Contino on naturalness and by Eugenio Coccia on gravitational wave astronomy —past, present and future.

The meeting lasted three days and almost 70 talks were presented and more than 50 posters shown. Most of the speakers were PhD students, and this is the main reason for the IFAE annual meeting: to give young physicists the opportunity to show (probably for the first time) their results in a conference.

Due to the magical site of the meeting, a guided tour to Castel dell’Ovo, located on the island of Megaride, was organized on Tuesday, April 9. The social dinner with view of the Castle, island and seaside followed.

We would like to thank the members of the Local Committee who organized this event: Fabio Ambrosino, Gianfranca De Rosa, Luciano Di Fiore, Adele Lauria, Paolo Massarotti, Stefano Mastroianni, Mario Merola, Giovanni Mettivier, Giuseppe Osteria, Pierluigi Paolucci, Pietro Santorelli, Francesco Tramontano, Laura Valore.

We wish to acknowledge the great work done by the conveners of the four sessions, who selected the talks and were able to meet the schedule and drive the discussion during the meeting: Flavio Archilli, Marzia Bordone, Marco Fedele, Marco Mirra, Benjamin Oberhof (Intensity Frontier), Marco Bonvini, Francesco Cirotto, Luigi Delle Rose, Mia Tosi (Energy Frontier), Giorgi Arcadi, Matteo Cadeddu, Roberta Colalillo, Paolo Panci (Cosmology and Astroparticles), Giada Mancini, Rosamaria Venditti, Valentina Scotti (New Technologies). We would also like to express our gratitude to the members of the Scientific Committee who gave us help and precious suggestions to smoothly conduct the meeting during the three days.

The success of a conference, in any case, relies on the quality of the presentations. The Scientific Committee selected notable presentations which were awarded with special gifts sponsored by Unione Industriali di Napoli, to whom we are grateful for having acknowledged the relevance of this event.

We were delighted to have hosted such high-level contributions. For this reason, we thank the speakers and the participants for creating the right feeling for the discussion.

Finally, we would like to express our gratitude for the support received from INFN and the University of Naples Federico II.