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9th Young Researcher Meeting

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Young Researcher Meeting, Salerno 2018

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Preface

The Young Researcher Meeting was founded in 2009 with the aim to gather undergraduate, graduate and PhD students together with young researchers to discuss the latest news, current progress and developments in various areas of physics. Held every year, the meeting offers the possibility to young physicists to present their original work and results, as well as to share their expertise and knowledge with the community. Another stimulating purpose of the meeting is to create an international network of researchers to promote collaborations and cross-fertilisation among different research areas.

The format chosen for the conference is an informal meeting where the attendees introduce their work with a brief presentation and/or a poster contribution.

The 9th edition of the Young Researcher Meeting was held at the University of Salerno, from 10th to 13th of July 2018 and it has been jointly organised by the Department of Physics "E. R. Caianiello" of the University of Salerno, the CNR-Spin and the International Physicists Network.

The event gathered 70+ participants affiliated with universities and research facilities in Italy and abroad. The plenary sessions covered several research areas, ranging from Astrophysics and Cosmology to Biophysics, Particle Physics, Condensed Matter, Theoretical Physics and Geophysics. The program also included a lectio magistralis by Prof. Antonio Di Bartolomeo from the University of Salerno on "The graphene-semiconductor Schottky junction" and three invited speakers: Dr Karoline Schaeffner from GSSI & INFN - LNGS, Dr Valerio Bozza from Salerno University & INFN and Dr Barbara Capone, Marie Curie Fellow at the University of Roma 3.

Moreover, the program included both a poster session during which the attendees had the possibility to taste local wine and chocolate, and a social dinner in a local restaurant with a breathtaking sea view of the Amalfi coast, a UNESCO World Heritage Site.

This year, participants were given the opportunity to take a tour of the Vesuvius National Park, guided by Prof. Roberto Scarpa, Director of the Physics Department at Salerno University and leading expert on Earthquake and Volcano physics.

The present volume of papers consists of a selection of the contributions presented at the conference as either talks or posters. These cover topics on Astrophysics and Cosmology, Biophysics, Theoretical and Particle Physics, and Condensed Matter.

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They would like to thank the University of Salerno for hosting the conference; the Università degli Studi di Salerno, the Department of Physics "E. R. Caianiello" and Biofotonica for financial support; the CNR-Spin for its support and the INGV for the tour in the Parco Nazionale del Vesuvio.

They are grateful to Tenuta Cavaliere, Arte Terra, Consorzio provinciale Olivicoltori and Workingas for providing the local products offered to the participants during the Poster&Wine session. We also acknowledge the support of the companies Workingas and Biofotonica.

The organisers would also like to thank the Director of the Department of Physics of the University of Salerno, Prof. Roberto Scarpa, for his advice and guidance during the visit to the Parco Nazionale del Vesuvio, Prof. Antonio Di Bartolomeo for his enthusiasm in accepting to deliver the *lectio magistralis*, Dr Karoline Schaeffner, Dr Valerio Bozza and Dr Barbara Capone for accepting to participate as invited speakers.

Finally, the organisers would like to thank and acknowledge the work of all the fellow scientists who contributed reviewing the papers published in this volume, thus guaranteeing they met the expected scientific standards of the conference and the journal.

















