

Preface

The Nuclear Physics in Astrophysics VI conference was the 6th event of the NPA biannual conference series. Previous events of this series were held at the Institute of Nuclear Research of the Hungarian Academy of Sciences (ATOMKI), Debrecen, Hungary, in 2002 and 2005; at the Forschungszentrum Dresden-Rossendorf, Dresden, Germany, in 2007; at the Laboratori Nazionali del Gran Sasso (LNGS), L'Aquila, Italy, in 2009; and in Eilat, Israel, in 2011. This edition of the NPA conference series was organized by the European Physical Society (EPS) through its Nuclear Physics Division, corresponding to the 26th edition of the Topical Conferences of the EPS.

As in previous editions, the goal of the NPA conference was to bring together the specialists in the fields of Nuclear Physics (theory and experiment) and Nuclear Astrophysics (theory and observation), providing the appropriate forum for review and discussion of the status and prospects of the field of Nuclear Astrophysics. During the discussions, special attention was given to the Nuclear Physics aspects that have an impact in Astrophysics. The list of topics discussed during the conference was:

- Big Bang Nucleosynthesis
- Stellar Nucleosynthesis and Evolution
- Experimental Facilities for Nuclear Astrophysics (Underground Laboratories)
- Experimental Facilities for Nuclear Astrophysics (Recoil Mass Separators)
- The s-process
- Explosive Nucleosynthesis I (r- and vp-process)
- Explosive Nucleosynthesis II (p and rp-process)
- Astrophysics of Compact Stars and Supernovae
- Neutron Stars and Equation of State (EoS)
- Isotope Detection Technologies for Nuclear Astrophysics
- Solar Standard Model
- Nuclear Physics of Exotic Nuclei: Experiments with RIB

The program consisted of keynote talks, providing a review on the recent advances in the field; invited talks and selected oral contributions that focused on specific topics; and poster contributions that had the opportunity to present the work to the audience via one minute oral contributions. In total 78 oral contributions and 64 posters were presented.

A total of 146 delegates participated in lively discussions during the oral presentations, the poster session scheduled during the second day of the conference, the coffee breaks and all programmed events of a social character. Regarding the participants, 41 were PhD candidates, 33 postdoctoral researchers and 72 senior scientists. The participation rate of women at the NPA-VI was 1/3. Fellowships to students and selected participants were supported by the Nuclear Astrophysics Virtual Institute (NAVI), the Joint Institute for Nuclear Astrophysics (JINA), the Network Activity ATHENA, and the ExtreMe Matter Institute (EMMI). This support was crucial to warrant the high participation of young researchers at the conference.

The excellent scientific atmosphere we experienced during the conference promoted vivid discussions, strengthened existing collaborations and motivated the continuation of the work in the interdisciplinary field of Nuclear Astrophysics, keeping the different communities on a joint working perspective.



