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## Preface

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## 13<sup>th</sup> CRIS-MAC 2024 Cosmic-Ray International Studies and Multi-messenger Astroparticle Conference



This issue of the *Journal of Physics: Conference Series* features a selection of papers presented at the 13th edition of the CRIS-MAC conference, which focused on fundamental topics in astroparticle physics, with a particular emphasis on multi-messenger astronomy.

The conference marked a shift in identity, reflected in the new acronym: CRIS-MAC (Cosmic-Ray International Studies and Multi-messenger Astroparticle Conference), while preserving the original numbering of the CRIS series. This change underscores the conference's growing emphasis on multi-messenger approaches to astroparticle physics.

The scientific programme covered a wide range of interconnected topics—including cosmic rays, gamma-ray and multi-wavelength astronomy, astrophysical neutrinos, and gravitational waves—highlighting the increasingly important role of multi-messenger observations in this field.

The event featured invited and contributed talks, posters, and flash presentations. As in previous editions, CRIS-MAC welcomed both established researchers and early-career scientists, including graduate and postgraduate students. The conference encouraged active, informal discussions, fostering a collaborative and dynamic scientific environment.

We extend our sincere thanks to all participants for their high-quality contributions and the stimulating exchanges that made the conference a success.





The conference was jointly organised by the Department of Physics and Astronomy “E. Majorana” of the University of Catania, by the Department of Physics and Chemistry “E. Segrè” of the University of Palermo and the Department of Physics “E. Pancini” of the University of Napoli Federico II and by the Catania and Napoli Divisions of the National Institute of Nuclear Physics (INFN).

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**Some of the committee members in Trapani during the conference.**