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## Galactic cosmic rays and cross-sections from accelerators

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The last generation of Galactic cosmic-ray experiments is providing a wealth of high-precision new data. The interpretation of these data is stimulating a very rich and active debate in the community, with strong discovery and constraining potentials on many topics (dark matter, acceleration and transport of cosmic rays, Galactic sources etc.). However, the consensus in the community is that these interpretations are strongly limited by nuclear cross-section uncertainties.

The XSCRC (Cross-Section for Cosmic Rays at CERN) workshop series <https://indico.cern.ch/event/1377509/> aims at bringing together experimentalists, phenomenologists, and theorists from various communities (astroparticle, particle physics, nuclear physics, etc.), to build synergies and provide a detailed road map to close the most urgent gaps in cross-section data, in order to efficiently progress on many open physics cases. In this talk, I will present the main outcomes from the 2024 edition, which are going to appear in a comprehensive white paper. In particular, I will discuss the most relevant physics cases and which cross sections are the most urgent to measure at high precision.

### Collaboration(s)

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