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## The new era of galactic cosmic rays

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A new era in galactic cosmic rays physics has started with the precise and continuous observations from space experiments such as PAMELA and AMS-02. Their invaluable results are rewriting the theory of acceleration and propagation of cosmic rays. Both at high energies, where several new behaviors have been measured, challenging the accuracy of theoretical models, as well as at low energies, in the region affected by the solar modulation. These precise measurements are improving our knowledge of galactic cosmic rays, allowing detailed studies of acceleration, propagation and composition as it has never been done before. These measurements will serve as a high-precision baseline for distinguishing the background from the signal of possible exotic sources. In this review, the status of the latest measurements in galactic cosmic rays together with the current open questions and the future prospects are presented.

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