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Cosmic rays: shaping dynamics and chemistry in star-forming regions

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Low-energy (<1 TeV) cosmic rays (CRs) are a key element in several physical and chemical processes of the interstellar medium, from the large scales of molecular clouds to the small scales of protostellar systems. During the last decade, significant progress has been made in understanding their transport regimes at different depths of a cloud and their interaction with magnetic fields. I will focus on the role of cosmic rays in the origin of interstellar chemistry showing how observations of molecular species can yield insights into the interstellar and local cosmic-ray spectrum

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