

Hadronic Interactions in CRPropa with state-of-the-art generators

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CRPropa 3.2, released recently, is the latest update in a continued effort to maintain and extend this open-source code well known in the cosmic-ray community. Originally aimed at simulating the ballistic propagation and interactions of Ultra-High Energy Cosmic Rays (UHECRs), today it can handle diffusive propagation of cosmic rays in a variety of magnetic fields, deal with stochastic cosmic ray acceleration, model electromagnetic cascades for gamma ray emission and transport, among other capabilities. Of special interest is the introduction of hadronic interactions to facilitate the treatment of cosmic ray interactions in the galaxy and within the sources. This talk provides an up-to-date overview of the code and details the recently implemented hadronic interactions in the context of bursting sources of UHECRs.

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