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On Cosmic-Ray Production Efficiency at Realistic Supernova Remnant Shocks

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Using three-dimensional (3D) magnetohydrodynamics (MHD) simulations, we show that the efficiency of cosmic-ray (CR) production at supernova remnants (SNRs) is over-predicted if it could be estimated based on proper motion measurements of H α filaments in combination with shock-jump conditions.

The CR production efficiency at the SNR has been widely discussed, which seems to be ubiquitously so high that b

Recent multi-dimensional MHD simulations of shock propagation through inhomogeneous diffuse interstellar med

In order to study influence of upstream inhomogeneities, we perform 3D MHD simulation of a shock wave propagat

Collaboration

- not specified -

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