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Recent extensions to GALPROP

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Recent extensions to GALPROP

Some recent extensions to the GALPROP cosmic-ray propagation package will be described.

These are built on the public version released a few years ago.

The enhancements include: an accurate solution option, improved convection formulation, alternative spatial boundary conditions, polarized synchrotron emission, new magnetic field models, updated gamma-ray production cross-sections, free-free radio emission and absorption, primary positrons, additional injection spectral breaks, deuterium production by pp fusion, hadronic energy losses, improved Healpix skymap format, compatibility with latest Healpix release, and various bug fixes.

The Explanatory Supplement has been extensively updated, including details of these enhancements.

The latest version is available at <https://sourceforge.net/projects/galprop>.

A compatible plot package for GALPROP output is at <https://sourceforge.net/projects/galplot>.

Collaboration

– not specified –

Registration number following "ICRC2015-I"

491

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