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CRT: A Numerical Tool for Propagating Ultra-High Energy Cosmic Rays Through Galactic Magnetic Field Models MICHAEL SUTHERLAND, Louisiana State University, BRIAN BAUGHMAN, University of Maryland, JAMES BEATTY, The Ohio State University — The deflection of ultra high energy cosmic rays (UHECRs) by cosmic magnetic fields, particularly the Galactic magnetic field (GMF), may be sufficiently large to confuse identification of their sources. Here we present a publicly available numerical tool *CRT*, which can forward- or back-track particles of any type through multiple magnetic field configurations. Trajectories are determined by numerically integrating the relativistic equation of motion. Users may specify magnetic field, source, and particle parameters through an input configuration file. *CRT*'s modular nature allows users to include additional field models and source distributions of their own. The interface is designed to be simple while still allowing the user to manipulate important runtime parameters. Output includes complete simulation information and a full description of each event's initial and final states. The current stage of development (available on the web) will be discussed, as well as plans for future updates.

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