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Investigating Cosmic Ray Propagation DANIEL SALAS, JONATHAN CORNELL, Weber State University — Understanding the propagation of charged cosmic rays through our galaxy is crucial to understand a range of astrophysical phenomena. Unfortunately, modeling this propagation is extremely non-trivial, with many uncertain parameters affecting the predicted fluxes of these particles. I will demonstrate a tool that I've developed which utilizes DRAGON2, a cosmic ray propagation program, and scans parameter space to find values of these propagation parameters that describe our galaxy. The output of the program is compared to the proton and antiproton flux data taken by AMS-02, a particle detector located on the ISS. This leads to a best-fit point that, when input into DRAGON2, gives spectra that closely match the AMS-02 data.

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