

# INFERRING ENERGETIC PARTICLE MEAN-FREE PATHS FROM OBSERVATIONS OF ANOMALOUS COSMIC RAYS IN THE OUTER HELIOSPHERE AT SOLAR MAXIMUM

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By August 2001, the Voyager 1 (V1) spacecraft will be at 81.9 AU and 33.7° North heliographic latitude and Voyager 2 (V2) will be at 64.7 AU and 22.8° South. Also by August 2001, the topology of the magnetic field throughout the heliosphere should be highly complex due to the convection of the evolving, highly inclined heliospheric current sheet associated with the Sun's magnetic field reversal. The latitudinal dependence of the solar wind speed should also be much reduced during this solar maximum period. Thus the particle distributions are expected to be more nearly spherically symmetric at solar maximum than at solar minimum. By comparing the intensities of anomalous cosmic rays at V1 and V2 we will infer the magnitude and rigidity dependence of the particle mean-free path in the outer heliosphere at solar maximum.

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