

Recent observations and modelling of low-energy cosmic rays near Earth

Wednesday, 27 July 2022 11:00 (30 minutes)

In this talk we discuss recent observations and modelling endeavours of low-energy cosmic rays near Earth and in the inner heliosphere. We especially focus on observations that present a challenge to theoretical and numerical modelling studies. Topics include the record-setting galactic cosmic ray (GCR) levels observed during recent solar minima that were not accompanied by such high levels of anomalous cosmic ray (ACR) fluxes, the large gradient of ACRs in the very inner heliosphere, and the observations of Jovian electrons in this newly explored region close to the Sun where the isotropic Parker particle transport formalism may not be completely valid. These recent observations present interesting challenges to the long-established cosmic ray transport paradigm.

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