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Anomalous cosmic ray spectra: role of the latitude dependence of the termination shock's compression ratio and injection efficiency

Abstract content

The compression ratio of the solar wind termination shock (TS) is an important parameter when studying the modulation of the anomalous component in the vicinity of the TS. An aspect that has been mainly overlooked is the inclusion of the latitude dependence of the compression ratio in modulation models. We present a theoretical study of the modulation effects of the latitude dependence of the compression ratio and of the injection efficiency (the source strength) on these anomalous cosmic rays. We find that this new modelling approach is important and can approximate the main features of the spectra observed by Voyager 1.

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Summary

Reference

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