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Detection, analysis and interpretation of the emulsion chamber signal

Abstract content

It was reported that the discrepancy between results of different balloon-borne experiments with calorimeter-type emulsion chambers (JACEE and RUNJOB) were critical for understanding the origin of cosmic rays and the acceleration mechanisms in the Galaxy. Based on our previous study of the emulsion chamber detectors, we search for mundane scenarios that could led the analysis astray. In present paper, a simple model of the detector is used. We look for a consistency among different kinds of emulsion chamber observables. We show that our analysis is congruent with the reported experimental data. It can be seen that contrasting assessments of experimental signal observed by RUNJOB can lead to variations in conclusions. We can deduce that the contradictions between different observations appear only at the stage of data interpretation.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

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