

Study of test particles in model current sheet during solar eruptions

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The solar energetic particles' (SEPs) acceleration/injection mechanisms near the Sun is a big puzzle to the community for very long time. The recent progress in the research on solar eruptive phenomena show that it usually includes solar flare, eruptive prominence, and CME. In this paper we will present test particle simulations in the model current sheet (Lin and Forbes 2000) during solar eruptions with different parameters associated with different types of CMEs: (flare-associated or non-flare-associated). The simulation results can help us to study the mechanisms of acceleration and injection processes near the Sun for different types of SEPs'.