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Overview of appearance of energetic particles in the solar corona and heliosphere

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This is an overview of appearance of energetic particles in the solar corona and heliosphere and additional acceleration mechanisms of solar and solar wind particles in the heliosphere. We will explore possible acceleration associated with reconnecting current sheets, termination shocks , current sheets with magnetic islands and associated turbulent structures. We will evaluate timing, energy and pitch angle distributions of energetic particles produced during the evolution of reconnecting current sheets with and without magnetic islands, formation of turbulent structures and their effect on accelerated particles. These distributions will be probed by observational characteristics of energetic particles in solar flares and solar wind particles at different distances from the Sun.