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## Integral fluences of GLEs: A new full reconstruction

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For many reasons, from solar physics to terrestrial and engineering applications, it is important to estimate the total fluences of solar energetic particles (SEPs) especially for the strongest hard-spectrum events known as ground-level enhancements (GLEs). Here we present a revised reconstruction of the SEP spectral fluences using a recently developed probabilistic Monte-Carlo method, applied to major GLE events of the last decades. The method utilizes data from the ground-based neutron-monitor network in the higher-energy range and revised space-borne/ionospheric data for the lower-energy part. The fluences are reconstructed along with realistic uncertainty estimates which appear large for weak events and small for strong events.