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The Energetic Particle Detector (EPD) Electron-Proton Telescope (EPT) on Solar Orbiter: In-flight calibration and background correction of science data.

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Solar Orbiter was launched in February 2020 carrying the most complete set of in-situ and remote sensing instruments, for the study of the Sun and the heliosphere. The Energetic Particle Detector (EPD) on board of Solar Orbiter was switched on on 28 February 2020 and, since then, it has provided us with measurements of the energetic particles traveling through the inner heliosphere. The EPD suite is composed of a set of different sensors measuring electrons, protons and ions in a wide range of energies.

The Electron-Proton Telescope (EPT) was designed to measure electrons and ions with energies of 35-4000keV and 45-7000keV respectively. By utilizing the so-called magnet/foil-technique, EPT is capable of measuring energetic particles with a high temporal and energy resolution while obtaining directional information from its four different fields of view. Although EPT is well suited for the study of solar energetic particle events, instrumental effects such as the contamination of EPT data products by GCR particles need to be understood for a correct interpretation of the data.

We will present our current understanding of the background and calibration of EPT based on the data gathered during the first year of Solar Orbiter's mission.

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