

Extended measurement of the proton spectrum with CALET on the International Space Station

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on behalf of the CALET collaboration

- CALET is aiming to measure the main components of high energy cosmic rays up to ~ 1 PeV in order to understand the cosmic ray acceleration and propagation. Using CALET data from Oct. 2015 to Sep. 2020, we have extended the measurement of the cosmic ray proton spectrum from PRL2019. Statistics has been increased by more than two years.
- We confirm the spectral hardening around ~ 500 GeV that was reported in PRL2019.
- We also expand the energy region to $E < 60$ TeV and observed a spectral softening in $E > 10$ TeV as well.
- By double broken power law fitting, it is obtained that the hardening at 550 ± 130 GeV and the softening at 11 ± 4 TeV.

