

# Estimation of the exposure of the TUS space-based cosmic ray observatory

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In this contribution we present a study on the exposure of the TUS detector

TUS is one of the first space missions where the JEM-EUSO detection technique can be tested

We analyzed ~78000 triggers in EAS mode acquired in the nocturnal side of the orbits

We studied:

- › The distribution of the triggers depending on the geographical location
- › The active time acquired during the TUS flight
- › The TUS exposure
- › The luminosity of the Earth
- › The impact of clouds on the exposure
- › The effect of the Moon illumination on the exposure