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Tests of JEM-EUSO 1st level trigger using EUSO-Balloon data

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EUSO–Balloon successfully flew on August 2014 from Timmins (Ontario, Canada). Its focal surface was an array of 36 MAPMTs, 64 pixels each, for a total of 2304 channels. During its 5 hours flight at float altitude of about 40 km it routinely recorded sequences of 128 consecutive 2.5 μ s long snapshots (GTUs) of the luminous conditions in its field of view (\sim 64 km^2) with a spatial resolution of \sim 175 \times 175 m^2 . In total about 4 \times 10⁷ GTUs were acquired imaging nightglow background from forests, lakes and clouds, as well as city light conditions and artificial air showers tracks generated

by means of a laser installed on an helicopter flying underneath EUSO–Balloon. EUSO–Balloon data have been processed a posteriori using the algorithm foreseen for the 1st level trigger of JEM–EUSO. This contribution will report on the results of such analysis.

Collaboration

JEM-EUSO

Registration number following "ICRC2015-I/"

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Author: Mr SUINO, Gregorio (University of Torino - INFN Torino)

Co-authors: Dr FENU, Francesco (University of Torino - INFN Torino); Dr BERTAINA, Mario (University of

Torino - INFN Torino)

Presenter: Dr FENU, Francesco (University of Torino - INFN Torino)

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