

Abstract Submitted
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EUSO-SPBII mission and calibration¹ VIKTORIA KUNDEL,
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TION — The Extreme Universe Space Observatory - Super Pressure Balloon
(EUSO-SPBII) mission will measure Čerenkov- and fluorescence-emission of ultra-
high energy cosmic rays (UHECR) and search for τ -neutrinos. The instrument will
have UV/UV-visible sensitivity to measure PeV and EeV-scale cosmic rays. The
planned launch date is 2023 from Wanaka, New Zealand, with a flight duration tar-
get of 100 days.

The payload consists of two optical 1-meter aperture telescopes. The fluores-
cence telescopes points down. Its field of view is $\text{FoV}_{FD} = 3 \times (11 \times 11)^\circ$.
The Čerenkov telescopes points towards the Earth's limb. Its field of view is
 $\text{FoV}_{CH} = (6.4 \times 12.8)^\circ$. Telescope integration and laboratory calibration will be
performed in Golden, Colorado. The main parameters determined in laboratory
tests are the the point spread function (PSF) and the efficiency of the integrated
telescope. An 1-m diameter parallel test beam will be used in these tests. Field tests
will include an end-to-end test of the fully integrated instruments with the help of a
steerable laser system, point sources and stars. A goal of the field campaign is the
validation of the trigger threshold.

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