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The development of the UHE neutrino telescope for EUSO-SPB2

Astrophysical ultra-high energy (UHE) neutrinos let us look inside the accelerators of ultra-high energy cosmic rays (UHECR), study the composition of UHECR, and study neutrino physics at the highest energies. We aim to detect Earth-skimming UHE tau neutrinos with the atmospheric imaging Cherenkov technique. Towards that goal, we are developing a prototype Cherenkov telescope that is scheduled to fly in 2022 on a long-duration balloon flight, the Extreme Universe Space Observatory Super Pressure Balloon 2 (EUSO-SPB2). In this poster, we present the status of development of the Cherenkov camera, optics, and sensitivity studies of the telescope.

Mini-abstract

Status of the development of the UHE neutrino telescope for EUSO-SPB2.

Experiment/Collaboration

EUSO-SPB2 Cherenkov Camera

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