

A northern sky survey for PeV gamma rays using the Tibet air shower array with water-Cherenkov-type underground muon detectors

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Abstract. The Tibet air shower array, which has an effective area of 37,000 m² and is located at 4300 m above sea level in Tibet, China, is a wide field-of-view gamma-ray telescope. We have a plan aiming at gamma-ray astronomy above 10 TeV by adding

a large water-Cherenkov-type muon detector array under the Tibet air shower array. We report on the results of a northern sky survey for PeV gamma rays with low cosmic-ray background using the prototype muon detectors and the Tibet air shower array.