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The H.E.S.S. II Data Challenge

Abstract content

The H.E.S.S. Atmospheric Cherenkov Array commenced operations in 2003 and has proved very successful, yielding numerous detections of astrophysical gamma-ray sources. The development of H.E.S.S. is now entering a new phase, with the H.E.S.S. II project currently at the construction stage. This upgrade includes the construction of a very large telescope in the centre of the current H.E.S.S. array, with a dish diameter of 28 metres. This instrument will work together with the existing four telescopes to increase the sensitivity of the entire detector array in the current energy range, as well as extending this sensitive range to much lower energies. This development will bring new challenges, not only in telescope construction, but also in data calibration and analysis. In order to adequately prepare for the arrival of H.E.S.S. II observations, it has been proposed to carry out a data challenge in advance of instrument first light, using realistically simulated observational data to validate and optimise the analysis chain. This data will include a realistic flux of background events as well as injected signals from simulated astrophysical gamma-ray sources. This work will be led by the H.E.S.S. group at DIAS and is currently in an advanced stage of preparation, using the facilities of the Irish COSMOGRID initiative.

If this papers is presented for a collaboration, please specify the collaboration

Summary

Reference

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