Contribution ID: **11** Type: **not specified**

The gamma-ray source morphology with H.E.S.S.: latest results

Wednesday 19 August 2020 15:00 (25 minutes)

The High Energy Stereoscopic System (H.E.S.S.) is a gamma-ray experiment composed of five Cherenkov telescopes and located in Namibia. Numerous gamma-ray sources have been detected since the start of operations in 2004, many of them physically extended. Yet, some sources are expected to be extended at the detection limit of H.E.S.S. New analysis methods, hardware upgrades as well as sophisticated Monte-Carlo simulations allowed the H.E.S.S. collaboration to investigate further details in the already detected sources. Understanding the morphology of the gamma-ray emission helps building a complete model for the source emission in a Multi-wavelength (MWL) scenario and sheds light on the origin of the accelerated particles. The latest findings regarding the extension of Galactic and extra-galactic sources are presented. Prospects for the Cherenkov Telescope Array (CTA), the next generation gamma-ray telescopes, are discussed.

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Session Classification: Session 2.2