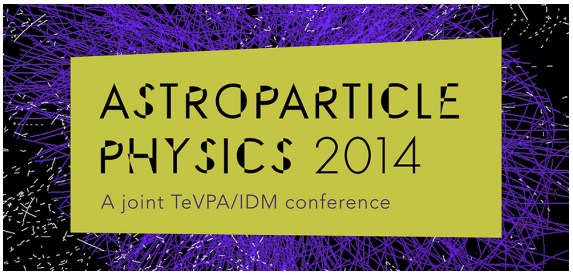

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The Galactic Center region at very-high energies with H.E.S.S.

Friday, June 27, 2014 2:45 PM (15 minutes)

The Galactic Centre region has been observed by the complete H.E.S.S.-I array of ground-based Cherenkov telescopes since 2004 leading to the detection of the very-high-energy (VHE, E > 100 GeV)gamma-ray source HESS J1745-290 coincident in position with the supermassive black hole Sgr A*.
A TeV gamma-ray diffuse emission has been detected along the Galactic ridge, very likely to be related to cosmic-ray interactions in giant molecular clouds of the Central Molecular Zone. We report here a study of the inner 50 pc of the Galactic Centre region using the full data set of 2004-2013 observations. In the light the morphological and spectral analyses of the unprecedented high quality H.E.S.S. data, we discuss the implication of the observed emissions to the understanding of the Galactic cosmic-ray population.

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