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H.E.S.S. observations of pulsars at very high energies

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More than 50 years after the discovery of pulsars by Jocelyn Bell-Burnell and Antony Hewish, their study remains a very active field of research.
Although great progress has been made in the last decade in interpreting the high energy emission of pulsars, thanks in particular to the wealth of data from the Fermi-
LAT satellite borne telescope, there are still many open questions, specially concerning the acceleration and radiative processes at play and the regions involved.
Very High Energy gamma-rays (VHE; >100 GeV) which are produced by the highest energy particles, are valuable probes for testing acceleration and emission processes in their extreme energy limit, but they are beyond the reach of satellites.
However, the expectation of the level of emission in this range – which has been lowered as a result of previous non-detections – is at the limit of sensitivity of current Imaging Atmospheric Cherenkov Telescopes (IACTs), and hence requires deep observations.
Since the discovery of VHE pulsations from the Crab in 2011, the number of pulsars detected from ground is increasing gradually. I will present the latest results from H.E.S.S. and discuss their implications on pulsar emission models.

Primary author: DJANNATI-ATAÏ, Arache (APC- CNRS)

Co-authors: Dr SPIR-JACOB, Marion (APC CNRS); Dr MOHRMANN, Lars (FAUE, Erlangen); Prof. RUDAK, Bronslaw (Nicolaus Copernicus Astronomical Center, Warsaw); Dr GIAVITTO, Gianluca (DESY, Zeuthen); Dr KHELIFI, Bruno (APC-CNRS); Dr VENTER, Christo (Centre for Space Research, North-West University, Potchefstroom); Dr ZANIN, Roberta (CTAO gGmbH); FOR THE H.E.S.S. COLLABORATION

Presenter: DJANNATI-ATAÏ, Arache (APC- CNRS)

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