Contribution ID: **7**   Type: **Talk**

DL3 data conversion in MAGIC

Wednesday 20 March 2019 12:00 (30 minutes)

MAGIC is one of the current Imaging Atmospheric Cherenkov Telescope (IACT) located at the Roque of los Muchachos Observatory on La Palma, one of the Canary Islands. It started to operate in 2003 and is still currently running. Since 2009, MAGIC operates in a stereoscopic mode with two telescopes. A Major hardware upgrade was performed in 2012 for both camera. I will present the status on the conversion of MAGIC data since this upgrade in the high level analysis data format defined for the future very high energy observatory CTA. This open format, named DL3, is based on the FITS format and will contain a list of reconstructed gamma-ray events for each observation as well as the associated instrument response function. The discussion on this format is still open. In order to test it as well as the new open high level analysis tools, it is necessary to convert the current IACT data in this DL3 format.

I will report on the data legacy planed in the DL3 format for MAGIC data and in particular on the production of full enclosure (with no cut applied on the event direction) and offset dependent field of view instrument response function. Both are needed for morphological and 3D analysis that are a crucial point for the high level analysis software developed for CTA. I will show out first spectral results on Crab Nebula observations with Gammapy and finish by explaining our plan to produce a background model.

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Session Classification: Wednesday