

# Vulcano Workshop 2014 - Frontier Objects in Astrophysics and Particle Physics



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## The MAGIC legacy to next generation of IACTs: results and prospects

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The present generation of Imaging Air Cherenkov Telescopes (IACTs) has greatly improved our knowledge on the Very High Energy side of our Universe. The MAGIC IACTs operate since 2004 with one telescope and since 2009 as a two telescope stereoscopic system. I will outline a few of our latest and most relevant results: the surprising gamma-ray factory in the Perseus galaxy cluster with emission from NGC1275 and the puzzling emission of IC310; the advances on the identification of the location of emission region in jets of AGNs; the discovery of pulsed emission from the Crab pulsar at VHE, recently found to extend up to 400 GeV and along the “bridge” of the light curve. Non detections and corresponding upper limits also provide an useful insight into the physics of the observed objects and into fundamental topics such as the Intergalactic Magnetic Field and emission from Dark Matter candidates. The results that will be described here and the planned deep observations in the next years will serve as a sound cornerstone for the future of VHE Astrophysics.

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