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From MAGIC to MAGIC-stereo: filling the gap with HE satellite experiments.

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The MAGIC telescope experiment was designed primarily to reach the lowest possible energy threshold with the ground-based gamma-ray Cherenkov technique, in order to fill the gap between MeV-GeV gamma-ray satellite experiments and TeV ground-based installations. The construction of a second MAGIC telescope, and the subsequent use of the stereoscopic operation mode, has already proven the achievement of that goal. Astrophysical spectra of some active galactic nuclei and pulsar wind nebulae are for example now completely sampled in the high energy peak from MeV to TeV, and often synchronized with very fruitful multi-wavelength campaigns, thus allowing a deeper insight onto the target physics. In addition, the sensitivity at low energies allows us to perform studies at pulsars, gamma-ray burst and other fundamental physics topics.

In this review, the improvement due to the stereoscopic upgrade will be briefly presented and discussed. The importance of low energy studies in astrophysics and fundamental physics searches will be exposed together with a selection of the most recent and conspicuous results obtained with the new MAGIC-stereo experiment.

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