

MAGIC detection of the the most distant AGN observed in TeV, gravitationally lensed blazar B0218+357

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The blazar QSO B0218+357 is the most distant AGN ($z=0.944$) detected so far in the TeV range. It is gravitationally lensed by the galaxy B0218+357G ($z=0.68$). Very-high-energy (VHE) gamma-ray emission from QSO B0218+357 was detected in July 2014 with the MAGIC telescopes, by measuring the time-delayed image of the flare, detected earlier by FERMI in the GeV range. Its emission enables the study of the EBL properties when the Universe was only half of its present age.

In addition, some features in the observed gamma-ray light curves hint that on the top of the time-delay caused by the mass of the lens galaxy, the gravitational microlensing effect may have occurred as well in the case of this system. The gravitational microlensing effect is very sensitive on the sizes of emitting regions at different wavelenghts. Ideas for future MWL observations of B0218+357 and similar systems will be discussed.

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