



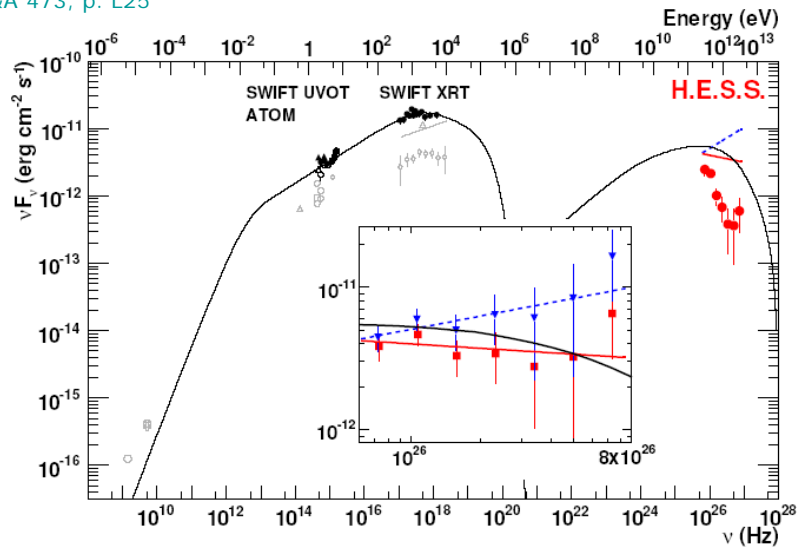
HIGHLIGHTS: this week in A&A

Volume 473-3 (October III 2007)

One of the most distant TeV blazars

"Discovery of VHE gamma-rays from the distant BL Lacertae 1ES 0347-121" by F. Aharonian, A.G. Akhperjanian, U. Barres de Almeida, et al., *A&A* 473, p. L25

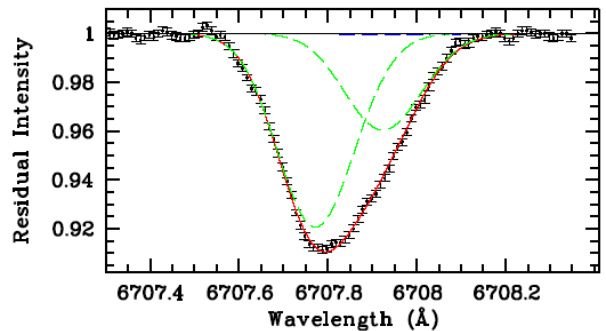
This article presents the detection by the HESS collaboration of the TeV blazar 1ES 0347, at energies higher than 250 GeV. It is one of the most distant TeV blazars detected so far. This discovery implies that the universe is more transparent to very-high-energy gamma rays than previously thought and confirms the constraints on the near-infrared extragalactic background light.



The 6Li/7Li isotopic ratio

"Line shift, line asymmetry, and the 6Li/7Li isotopic ratio determination" by R. Cayrel, M. Steffen, H. Chand, P. Petitjean, M. Spite, F. Spite, H.-G. Ludwig, E. Caffau, and P. Bonifacio, *A&A* 473, p. L37

Since 6Li is not formed by standard big bang nucleosynthesis, its suspected presence in metal-poor stars has far-reaching consequences. Here, the authors use a high-quality spectrum of HD 74000 (S/N ratio of 600 per pixel and spectral resolution of 120 000) obtained with HARPS at ESO to demonstrate that line asymmetries generated by convective Doppler shifts in the atmosphere of metal-poor stars result in an excess absorption in the red wing of the 7Li absorption feature that mimics the presence of 6Li. A reappraisal of 6Li abundance determinations in halo stars is thus in order.



In section 4. Extragalactic astronomy

"The transverse proximity effect in spectral hardness on the line of sight towards HE2347-4342" by G. Worseck, C. Fechner, L. Wisotzki, and A. Dall'Aglio *A&A* 473, p. 805

This is the first evidence of a transverse HeII proximity effect to be found around high redshift quasars.