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First simultaneous multiwavelength observation for the BL Lac object, 1ES1959+650 in a low state with MAGIC and Suzaku/Swift

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Abstract content

Multiwavelength observations provide valuable information to estimate the physical parameters of AGN emission models. Since blazars show a strong flux variability, it is important to derive these physical parameters in the different states in order to understand the acceleration mechanism and in the jet. So far simultaneous blazar observations in X-rays and VHE gamma-rays could only be performed in their high states due to the limited sensitivity of conventional Imaging Atmospheric Cherenkov telescopes (IACTs). Recently, new IACTs, like the MAGIC telescope, have made it possible to measure the flux within some hours of observation even in the low state of certain blazars. In May 2006 we conducted simultaneous multiwavelength observations for the BL Lac object, 1ES1959+650 in a low state with the MAGIC telescope, together with the X-ray satellites Suzaku and Swift. Swift also provided multi-filter photometry in the UV-optical band. The source was clearly detected in all energy bands, from the optical to TeV energies. 1ES1959+650 is an interesting TeV BL Lac object that showed an "orphan" flare in VHE gamma-rays in 2002 which can not be explained with a simple one-zone SSC model. In this presentation, the results from the MAGIC-Suzaku-Swift multiwavelength observations will be reported.

If this papers is presented for a collaboration, please specify the collaboration

the MAGIC collaboration and the X-ray working team

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 3 (OG part 2), pages 1021-1024

Primary author(s): Mr. HAYASHIDA, Masaaki (Max-Planck-Institut fuer Physik, D-80805 Muenchen, Germany); Dr. TAGLIAFERRI, Gianpiero (INAF/Osservatorio Astronomico di Brera, Merate, Italy)

Co-author(s): Dr. BIGONGIARI, Ciro (Universita di Padova and INFN, I-35131 Padova, Italy); Dr. FOSCHINI, Luigi (INAF/IASF, Bologna, Italy); Dr. GHISELLINI, Gabriele (INAF/Osservatorio

Astronomico di Brera, Merate, Italy); Dr. KRANICH, Daniel (ETH Zurich, CH-8093 Switzerland); Dr. MARASCHI, Laura (INAF/Osservatorio Astronomico di Brera, Milano, Italy); Dr. MORALEJO, Abelardo (Institut de Fisica d'Altes Energies, Edifici Cn. E-08193 Bellaterra, Spain); Dr. TAVECCHIO, Fabrizio (INAF/Osservatorio Astronomico di Brera, Merate, Italy); Dr. TOSTI, Gino (University of Perugia, Italy)

Presenter(s): Mr. HAYASHIDA, Masaaki (Max-Planck-Institut fuer Physik, D-80805 Muenchen, Germany)

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