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Time variation of the flux of TeV gamma-rays from PKS 2155-304

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Abstract content

Obseravations of neaby blazar PKS 2155-304(z=0.116) was performed in July and August 2006 with the CANGAROO-III atmospheric Cherenkov telescope in South Australia, which was triggered by the H.E.S.S. group as a high state. Stereo observations with three telescopes were performed except for the observations done before culmination in each night of July periods due to mechanical tracking problem of one telescope. Only two-fold observations were done in those periods. Here, by combining three-fold data and two-fold data, the time variation of the flux of VHE gamma-rays from PKS 2155-304 was studied. Effective live time for three-fold and two-fold obseravtions in July is 15.0 hours and 9.4 hours, respsctively, and that for August is 17.1 hours. We detected averaged signals at the 6.8 sigma level for three-fold data in July and at the 2.7 sigma level in August. More than 4 sigma level signals are detected for two-fold obseravtions. The light curve shows a clear nightly time variation of the flux from PKS 2155-304, particularly the flux in July 28 and 30 exceeds 1 Crab.

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

CANGAROO 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 897-900

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