



Contribution ID : 127

Type : **Poster**

AN EVIDENCE FOR STRONG NON-THERMAL EFFECTS IN TYCHO SNR

Friday, 6 July 2007 14:45 (0:00)

Abstract content

We present for the case of Tycho's supernova remnant the relation between the blast wave and contact discontinuity sizes calculated within the nonlinear kinetic theory of cosmic ray acceleration in SNRs. It is demonstrated that they are very well confirmed by recently published Chandra measurements, which show that the observed contact discontinuity radius is so close to the shock radius, that it can only be explained by the efficient CR acceleration which in turn makes the medium more compressible.

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

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. 2 (OG part 1), pages 559-562

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Session Classification : Posters 2 + Coffee

Track Classification : OG.2.2