Seventeenth Marcel Grossmann Meeting



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Pseudo Redshifts of Gamma-Ray Bursts with a Plateau Phase

Monday, 8 July 2024 16:00 (30 minutes)

The X-ray afterglow of many gamma-ray bursts (GRBs) exhibits a plateau phase, which may be related to continued activities of the central engine. It has been found that there exists a so-called L–T–E correlation for these GRBs, which involves three key parameters, i.e., the isotropic gamma-ray energy Eiso of the prompt phase, the end time Ta of the plateau phase, and the corresponding X-ray luminosity Lx. In our recent study, we found that the L–T–E correlation can be used to derive a pesudo redshift for GRBs with a plateau phase. Based on the large sample of GRBs with such a pesudo redshift, statistical analysis is carried.

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Session Classification: Gamma-ray bursts and AGNs with machine learning

Track Classification: Artificial Intelligence Methods (AI): Gamma-ray bursts and AGNs with machine learning