



Contribution ID: 1076

Type: **Invited talk in the parallel session**

Exploring the behaviour of long gamma-ray bursts with intrinsic afterglow correlations

Friday, 9 July 2021 09:10 (20 minutes)

We present a correlation observed in both the optical and X-ray afterglows of long duration Gamma-ray Bursts (GRBs), between the initial luminosity (measured at restframe 200s) and average afterglow decay rate. This correlation does not depend on the presence of specific light curve features and is potentially applicable to all long GRB afterglows. We explore how the correlation decay parameters from the optical and X-ray bands relate to each other and to the prompt emission phase. We will also explore the implications and test if the observations are consistent with the expectations of the standard afterglow model.

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Session Classification: Gamma-Ray Burst Correlations: Observational Challenges and Theoretical Interpretation

Track Classification: Fast Transients: Gamma-Ray Burst Correlations: Observational Challenges and Theoretical Interpretation