

Abstract Submitted  
for the TSF19 Meeting of  
The American Physical Society

**Analysis of Gamma Ray Bursts with Measured Redshift with  
Respect to Flux/Fluence and Spatial Distribution** SAMUEL TESSEMA,

None — It is currently accepted that there are two types of gamma-ray bursts (GRBs): short/hard ones and long/soft ones with the possibility of a third, ultra-long group arising from recent data. The long GRBs are associated with supernovae, where the short ones arise from macronovae (or kilonovae). Kilonovae can arise from the merging of two neutron-stars or more massive black holes. Therefore, the study of gamma-ray bursts, especially short ones, and the study of massive binaries are strongly linked. This investigation focuses on the measured redshifts of all GRBs detected to date. We find an intriguing result such that an inverse relationship appears where GRBs which appear fainter can be at smaller distances. Our results, therefore, resemble those of Meszaros et al (2011), but with an up-to-date collection of GRB samples. In effect, the former result is supported by the analysis of the newly collected data.

Samuel Tessema  
None

Date submitted: 30 Sep 2019

Electronic form version 1.4