

The properties of the outflow and prompt emission of 14 LAT GRBs

Tuesday 11 October 2022 10:40 (1 minute)

The composition of the jet and the nature of the prompt non-thermal emission are open questions in gamma-ray bursts astrophysics. In this work, we study the degree of magnetisation of the jet and the prompt emission for 14 Fermi LAT GRBs with sub-dominant black-body components. We first carry out the joint spectral analysis of these GRBs with the GBM and LAT data using multi-component spectral models. We then use the results of the spectral analysis to study the characteristics of the jet and the prompt non-thermal emission in various scenarios.

Track

GRBs

Author: Ms SHAIKH, Urooba (Institute of Space Technology (IST), Islamabad Pakistan, Space and Astrophysics Research Lab (SARL), National Center for GIS and Space Applications (NCGSA), Islamabad, Pakistan)

Co-author: SAJJAD, Saeeda (Institute of Space Technology (IST), Islamabad Pakistan, Space and Astrophysics Research Lab (SARL), National Center for GIS and Space Applications (NCGSA), Islamabad, Pakistan)

Presenter: SAJJAD, Saeeda (Institute of Space Technology (IST), Islamabad Pakistan, Space and Astrophysics Research Lab (SARL), National Center for GIS and Space Applications (NCGSA), Islamabad, Pakistan)

Session Classification: Poster session