Contribution ID: **235** Type: **Poster**

Fermi-GBM and Swift-BAT detection of an extragalactic magnetar giant flare

Wednesday 14 April 2021 07:18 (3 minutes)

We present the observations of the first unambiguous magnetar giant flare from outside of our galactic neighborhood. At the beginning, GRB 200415A was identified as a short GRB, but upon further investigation and observations from additional instruments, we concluded this event was a giant flare from a magnetar located in the Sculptor galaxy, 3.5 Mpc away. The GBM lightcurve shows very fast (shorter than 0.1 ms) variability, which is unprecedented among both magnetar giant flare and GRB observations. Based on the MeV range photons that Fermi-GBM detected, we find proof of relativistic expansion. We will show the detailed data analysis, the fast spectral evolution and the interpretation of this unique event.

Primary author: VERES, Peter

Presenter: VERES, Peter

Session Classification: Gamma-ray Bursts/SN/Instrumentation-2

Track Classification: Gamma-ray Bursts