



Contribution ID: 880

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

Gamma-Ray Bursts and magnetars in the multi-messenger era

Friday, 9 July 2021 07:30 (20 minutes)

Newly-born millisecond magnetars are competing with black holes as source of the gamma-ray burst (GRB) power. In ten years of activity, Swift has provided compelling but indirect evidences supporting the magnetar central engine for both long and short GRBs, that is currently the best way to interpret several correlations observed between prompt and afterglow properties. We review the main observational features that point to the magnetar central engine, and we discuss how the combined information provided by both the electromagnetic and gravitational signal is the most promising way to unveil the nature of the GRB central engine, which is one of the major breakthrough achievable in the next future.

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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