Seventeenth Marcel Grossmann Meeting



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Magnetar outbursts and beyond

Thursday, 11 July 2024 15:00 (30 minutes)

Magnetars are the strongest magnets we know of, with magnetic fields reaching values up to 10^15 G at the surface. Transient activity in the X-/gamma ray regime is the birthmark of magnetars. Their radiative variability includes short, explosive events from milliseconds to hundreds of seconds (i.e., bursts and giant flares) and longer-lived outbursts (weeks to months). In this talk, I will review the results obtained from a systematic analysis of outbursts, focusing on a few specific events. Then, I will finish with some considerations on magnetar-like activity from other classes of neutron stars and the possible evolutionary links between different neutron star families.

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Session Classification: Galactic and extragalactic magnetars: recent observations and theoretical progress

Track Classification: Compact Objects and Stellar Evolution (CO): Galactic and extragalactic magnetars: recent observations and theoretical progress