Sixteenth Marcel Grossmann Meeting



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Recent results on magnetar flares and their connections with gamma-ray bursts and fast radio bursts

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"2020 was a special year for magnetar studies. The first simultaneous detection of an FRB-like radio burst from a Galactic magnetar and its high-energy counterpart (FRB/SGR 200428) suggests that magnetars can produce FRBs. Observations of the short γ-ray burst GRB 200415A, associated with a nearby galaxy and with properties closely resembling the huge initial pulses of magnetar giant flares (MGF), made this event, and its "twin" GRB 051103, the most promising candidates for extragalactic MGFs. We report on hard X-ray/gamma-ray properties of these events obtained with the Konus-Wind GRB experiment and discuss their implications for magnetar/FRB and magnetar/GRB connections

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