

Sixteenth Marcel Grossmann Meeting



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High energy observations of FRBs

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The origin of Fast Radio Bursts (FRBs) remains a mystery even as we are collecting important roadsigns that point towards preferred source models. A key piece of the puzzle is the search for their multi-wavelength counterparts. Many observations at high energies of FRB sources have been performed to date, but two recent discoveries perhaps provide the most information: the detection last year of a FRB-like event from the Galactic magnetar SGR 1935+2154 with a simultaneous X-ray burst points to a magnetar origin for some FRBs, but also shows that FRB-like emission can be accompanied by prompt high-energy emission. Second, the recent discovery by CHIME/FRB of a nearby FRB source associated with a M81 globular cluster at 3.6 Mpc, FRB 20200120E, both perhaps points away from a magnetar origin and allows us to probe much deeper for high-energy counterparts than for previously known, much more distant FRB sources. In this talk I will review the high-energy observations of FRB sources performed to date, present the most recent observations of FRB 20200120E, and discuss what the resulting limits can tell us about the nature of FRBs.

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Session Classification: What Can We Learn from a Growing Sample of Fast Radio Bursts?

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