

Second Gravi-Gamma Workshop



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

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Newly-born millisecond magnetars are competing with black holes as source of the gamma-ray burst (GRB) power, mainly with their rotational energy reservoir. Since the GRB central engine remains hidden from direct electromagnetic observations, we discuss how the combined information provided by both the electromagnetic and gravitational signal are the most promising way to unveil its nature. The still unique case of GW 170817 / GRB 170817A could not provide any compelling evidence in favor of one of the two scenarios from the GW signal, thus this remains one of the major breakthrough achievable in the next future and with the next generation gravitational wave detectors.

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Session Classification: Multi-messenger science potential with current detectors