

# SHORT GAMMA-RAY BURSTS AND MULTIMESSENGER ASTROPHYSICS

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## **Abstract**

The first binary neutron star merger detection marked the beginning of multimessenger astrophysics with gravitational wave sources. In this talk, I will discuss the central role played by short gamma-ray bursts (SGRBs) in this new research field. I will review the most important steps leading to the interpretation of GRB 170817A as a “canonical” SGRB and the open questions addressed by the current theoretical investigation. Then, I will discuss crucial observational gaps of the August 2017 event and show how a future mission like THESEUS will be ideal to overcome these limitations.