

# Vulcano Workshop 2022 - Frontier Objects in Astrophysics and Particle Physics



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## Relativistic Jets and Gamma-Ray Bursts from Neutron Star Mergers

*Monday, 26 September 2022 11:00 (25 minutes)*

A defining characteristic of gamma-ray bursts (GRBs) is the presence of jetted outflows. These jets are shaped by their launching mechanism and interactions with the environment (both close and further distant) of the GRB, as revealed to us when the jets decelerate from the ultra-relativistic to the non-relativistic. Due to its close proximity and off-axis orientation, multi-messenger event GRB 170817A has been particularly informative in this regard. In this talk I will review the characteristics of GRB jets, paying special attention to recent developments in the field prompted by observation and numerical study of the afterglow of short GRBs from neutron star mergers.

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