

Multi-messenger Counterparts

Core Collapse Supernova

- What types of stars produce CCSN?
- What is the energy budget for CCSN?
- What would we learn if we saw a CCSN with multiple messengers?

Compact Binary Coalescence

- What types of systems are likely to produce electromagnetic counterparts?
- What types of signals would we expect?
- What are the challenges for making multi-messenger observations?
- Types of electromagnetic signals
 - Jet physics
 - Short Gamma Ray Bursts
 - X-ray and radio afterglows
 - Kilonova
 - R-process nucleosynthesis

Suggested Reading

- GW170817 Fact Sheet
 - https://dcc.ligo.org/public/0146/G1702000/006/GW170817_Factsheet.pdf
- Multi-messenger Astronomy Science Summary
 - <https://www.lsc-group.phys.uwm.edu/webcommphp/science/Publication-GW170817MMA/index.php>