

Astrophysics Seminar Series

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Short-Duration Gamma-Ray Bursts and the Electromagnetic Counterparts of Gravitational Wave Sources

Gamma-ray bursts are the most luminous and energetic explosions known in the universe. They appear in two varieties: long- and short-duration. The long GRBs result from the core-collapse of massive stars, but until recently the origin of the short GRBs was shrouded in mystery.

In this talk I will present several lines of evidence that point to the merger of compact objects binaries (NS-NS and/or NS-BH) as the progenitor systems of short GRBs. Within this framework, the observational data allow us to determine the merger rate of these systems as input to Advanced LIGO, to infer the electromagnetic properties of gravitational wave sources, and to study r-process nucleosynthesis.

21 March 3:30 pm
Bell Room (103), Rutherford Building

For more information: msi.mcgill.ca/Seminars.html