

# The Evolution of Massive Stars and Progenitors of GRBs

June 17 - July 1

Aspen Center for Physics, Aspen, CO

Long-duration gamma-ray bursts (LGRBs), associated with the core-collapse deaths of unusual massive stars, are the fleeting signatures of extraordinarily high-energy events occurring throughout our universe. These phenomena hold enormous promise as cosmological tools, but the full potential of LGRBs cannot be realized without first gaining a thorough understanding of their massive stellar progenitors. Recent advances in the massive star community on binarity, mass loss, and the effects of metallicity are all critical to current debates surrounding the nature of LGRB progenitors. Simultaneously, new results in the LGRB community have yielded important insights into the physical properties, environmental dependences, and interior structures of the most extreme massive stars. However, the study of massive stellar evolution and the study of LGRBs have long been seen as separate pursuits within astronomy, with only limited communication between the two subfields. This multi-disciplinary workshop will bring together leaders in these complementary disciplines, offering an opportunity for participants to exchange expertise, share recent results, and consider the most pressing current questions that will shape the future of LGRB and massive star research for years to come.

Weblink: <http://casa.colorado.edu/~emle6425/aspen/>

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