



Department of Physics and Astronomy  
FALL 2022 Colloquium Series

# “The Brightest Stellar Explosions”

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*University of California, Berkeley*

Recently astronomical surveys have discovered a diverse class of superluminous transients, that for weeks or more shine 10 to 100 times brighter than common supernovae. The origin of these extreme events is still debated; one idea is that after a star explodes in a supernova, the stellar debris is further energized by a newly formed central black hole or a highly magnetized, rapid rotating neutron star. Another idea is that the debris expelled in the supernova lights up when it crashes into dense material in its surroundings. I will discuss the methods we use to numerically model supernova explosions and generate predictions that can be compared to astronomical data, and how these efforts are helping us tell a complete story of the life and death of stars.

**Thursday, October 20, 2022**

**4:00 - 5:20PM**

**MND1015**

*Open & Free to all students, faculty and public*