

COLUMBIA ASTRONOMY OUTREACH PRESENTS:



PUBLIC LECTURE & STARGAZING

Cosmic Fireworks: The Explosive Deaths of Massive Stars

A lecture by Maryam Modjaz
Friday, January 28th, 7:00PM
Pupin Hall, Columbia University

Massive stars die violently. They produce the most powerful explosions in the Universe during their death-throes: supernovae and gamma-ray bursts. Supernovae are brilliant firework displays that become as bright as a billion suns combined, and gamma-ray bursts are monster explosions that launch jets moving nearly at the speed of light and outshining the whole gamma-ray Universe in a few seconds. Both explosions produce and expel heavy elements and an enormous amount of energy; they leave behind fascinating objects such as black holes and pulsars, and like beacons they are visible over billions of light years across the vast Universe. How are these types of explosions related? Are they dangerous to life on earth? How may they be vital for life on earth? Come and find out.



These are free lectures at a public level followed by guided stargazing with telescopes (weather permitting). All events are held at Pupin Hall at Columbia University. No reservations are needed. Lectures are 30 minutes, stargazing lasts 90 minutes.

For directions, weather updates and more information, please visit:

<http://outreach.astro.columbia.edu>