

## Cosmic Fireworks

A Lecture by Mansi Kasliwal

Friday, October 20th, 8:00PM

Cahill Center for Astronomy and Astrophysics  
California Institute of Technology

Our dynamic Universe is adorned by cosmic fireworks: energetic and ephemeral beacons of light that are a million (nova) to a billion (supernova) times brighter than our sun. On August 17, 2017, we witnessed cosmic fireworks unlike anything we have seen before. We saw two neutron stars merge and emit both gravitational waves and electromagnetic radiation spanning the gamma-rays, X-rays, ultra-violet, optical, infrared and radio. The astrophysics of the new fireworks suggests we are seeing the cocoon of a jet break out. The astrochemistry of the new fireworks suggests they serve as cosmic mines where various elements in the periodic table (e.g., Gold, Platinum, Uranium, Neodymium) are synthesized.

Image Credit: Robin Dienel/Carnegie Institution for Science

These are free lectures at a public level followed by guided stargazing with telescopes (weather permitting). All events are held at the Cahill Center for Astronomy and Astrophysics at Caltech. No reservations are needed. Lectures are 30 minutes, stargazing lasts 90 minutes. Stay only as long as you want. For directions, parking, weather updates, and more information, please visit:

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