## **COLUMBIA ASTRONOMY OUTREACH PRESENTS:**

## PUBLIC LECTURE & STARGAZING

## Viewing the Universe in Gamma-Rays

A lecture by Rene Ong Friday, February 25th, 7:00PM Pupin Hall, Columbia University



The Universe is filled with invisible radiation that cannot be seen by human eyes. At the highest energies and the shortest wavelengths, gamma rays are produced in extreme environments near powerful cosmic accelerators such as supermassive black holes, neutron stars, and even the center of our Galaxy. These gamma rays, having energies more than a billion times that of visible light, can be detected at Earth by novel instruments that look more like particle physics experiments than conventional telescopes. This talk will discuss the basic techniques of gamma-ray astronomy and will review some of the recent exciting results from the latest generation of instruments, focusing on the ground-based telescope VERITAS in Arizona and the Fermi telescope in space.

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