

Leiden Observatory Colloquium Wednesday, January 25, 2012

George Sonneborn
NASA Goddard Space Flight Center
Laboratory for Observational Cosmology

SN 1987A: The Supernova of the Century

Abstract

Supernova 1987A in the Large Magellanic Cloud is one of the most intensively studied objects in the universe and a Rosetta Stone for understanding the explosions of massive stars. Approaching its 25th anniversary, SN 1987A is a very young supernova remnant, a phase previously unobserved in any other supernova. The supernova of the 20th Century is now the supernova remnant of the 21st Century. In this talk I will discuss recent observations from the far-ultraviolet to the far-infrared with HST, the VLT, Spitzer, and the Herschel Space Observatory. These data reveal new insights into the composition, geometry, and heating of the explosion debris, the shock interaction with circumstellar material, and dust in the SN 1987A system.