Research

Gamma-Ray Bursts (GRB) were first detected in 1967 by the American NASA vela satellites. They consist in a short and bright flash of gamma rays (energy from 100 keV to several MeV), lasting from under a to a few tens of seconds. The cosmological origin of these flashes was established back in the 90’s when their distribution on the sky was shown to be isotropical. (talk about instruments) They are the result of the most luminous explosions in the Universe, launching jetted ultra-relativistic blast waves into their environment.

Today, is is known that these explosions are triggered by the collapse of a supermassive star (long GRB) or by the merger of two neutron stars (short GRB), with the recent detection of gravitational waves spectacularly confirming the latter connection.