Scientists Discover Supernova 20 Times Brighter Than Our Galaxy

Astronomers have found a distant supernova, or exploded star, 20 times brighter than the Milky Way galaxy, according to research published on Thursday.

The massive supernova is about 3.8 billion light-years away in a galaxy roughly three times the size of the Milky Way, scientists wrote in a report in this week's issue of the journal Science.

A light-year is the distance that light travels in one year, moving at 186,000 miles (300,000 km) per second.

The cosmic blast was first spotted on June 14, 2015, in an automated search for supernovas conducted by a global network of small telescopes.

"It didn't look like any of the other 200 or so supernovae we had discovered at that point," astronomer Subo Dong, with the Kavli Institute for Astronomy and Astrophysics at Peking University in China, wrote in an email.

Dong and colleagues do not know what triggered the blast, which is more than twice as bright as any previously discovered supernova. They plan to use the Hubble Space Telescope later this year to get a better look at the supernova's host galaxy for clues.

If the supernova, known as ASASSN-151h, is at the center of its galaxy it could have been triggered by a massive black hole.

Black holes are objects so dense with matter that not even photons of light can escape their gravitational pull. Massive

black holes are believed to exist at the centers of most, if not all, large galaxies, including the Milky Way.

Another theory is that the supernova was spawned by a magnetar, a rare, rapidly rotating neutron star with an extremely powerful magnetic field, according to Ohio State University astronomer Todd Thompson.

“Like many mysteries in astronomy, it may take years, if not decades, of observational and theoretical efforts to unravel it,” Dong said. {eoa}