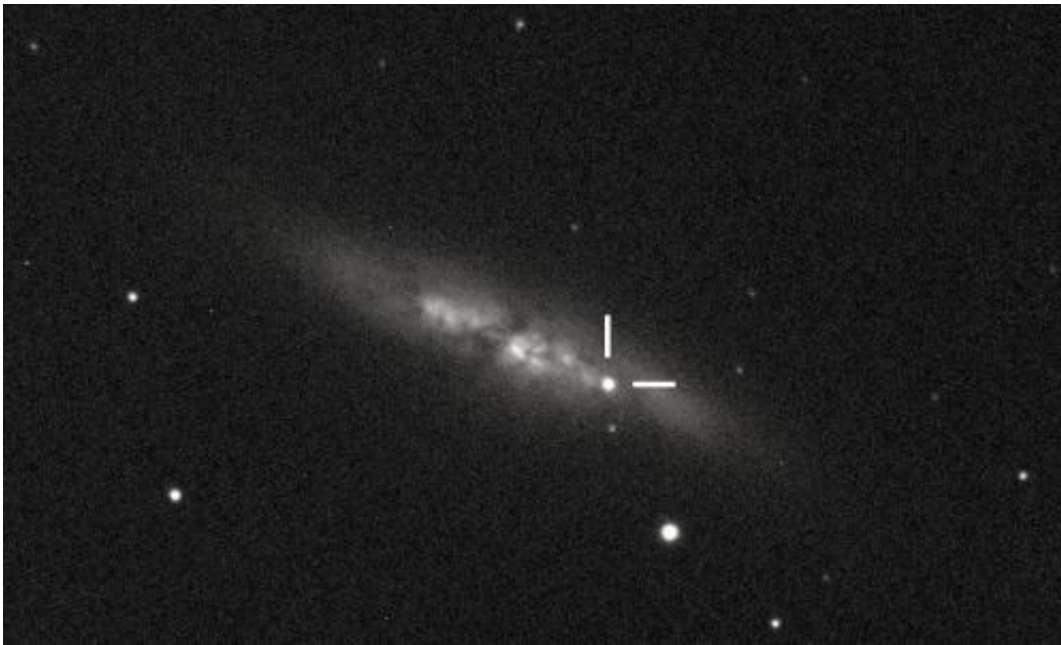


Nearest supernova in 27 years explodes in M82 galaxy

January 23 2014, by Bob Yirka



Credit: UCL/University of London Observatory/Steve Fossey/Ben Cooke/Guy Pollack/Matthew Wilde/Thomas Wright

(Phys.org) —A supernova [has been spotted](#) in the constellation Ursa Major (between the Big and Little Dipper in the night sky) in the M82 galaxy (affectionately known as the cigar galaxy) by a team of students at University College London. The discovery was [posted](#) on the Central Bureau's Transient Object Confirmation Page which led to follow-up observations by other teams around the world. It's real, and not only is it bright enough for amateur astronomer's to view, but it's the closest known

supernova explosion since 1987.

Initial study has revealed the supernova to be classified as 1a, the type described by astronomers as "[standard candles](#)" because their brightness is uniform enough to allow for using them to measure distances across the universe. Sometimes they start out as a white dwarf, pulling in material from around them until they reach a critical mass and explode. Other times they are the result of two such stars (binaries) colliding.

What's perhaps most exciting about this newest observation is that it's so close (just 11.4 million light years from us) that it's likely that images of the star that exploded have been previously recorded by different telescopes around the globe which means scientists might be able to watch the process that led to the supernova occurring, something that has never been seen before. If that turns out to be the case, other space researchers note, the stage could be set for allowing for reducing uncertainties in measuring dark energy—standard candle observations are the means by which such theories first came to exist after all. Also, while the explosion has undoubtedly unleashed a torrent of neutrinos, its unlikely monitors here on Earth will notice much of an uptick in activity due to distance and them getting lost in other sources.

Because of the timing of the discovery, it appears that there is more to come—it's going to get brighter over the next few days before growing dimmer and dimmer, eventually fading to black. That means that anyone wishing to observe a [supernova](#) as it's happening can do so—likely a once in a lifetime opportunity. Binoculars should be enough, though a telescope would be much better. [Universe Today](#) has published a map to help those looking find it.

More information: www.astronomerstelegam.org/?read=5786
remanzacco.blogspot.nl/2014/01...upernova-in-m82.html

© 2014 Phys.org

Citation: Nearest supernova in 27 years explodes in M82 galaxy (2014, January 23) retrieved 2 May 2024 from <https://phys.org/news/2014-01-nearest-supernova-years-m82-galaxy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.