

Betelgeuse Supernova

April 24, 2020

Context: The red supergiant star Betelgeuse is nearing the end of its life,

- During January and February 2020, it reached a record low – around 40 percent of its usual brightness.
- Researchers have estimated that this will likely happen to Betelgeuse within next 100000 years, which is relatively soon in astronomical terms
- This explosion will create a burst capable of briefly outshining an entire galaxy,
- Located in the constellation Orion, the star is about 1,000 times the size of the sun

Other

- Stars come in all sizes. There are dwarf stars that are much smaller than our sun. Then there are supermassive stars several times the size of the sun. Our own galaxy Milky Way hosts a number of such stars.
- Red supergiants form when a massive star runs out of hydrogen in its core and can no longer convert hydrogen into helium via nuclear fusion. At this point, the core begins to contract, which raises the star's internal temperature and ignites a shell of hydrogen fusion around the core, causing the star's outer layers to expand and cool.
- When a massive star runs out of material in its core, the star will collapse under its own gravity and turn into a supernova.

The life cycle of a star

