

# The Purple Rose of Virgo (Forwarded)

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The Purple Rose of Virgo

VLT Image of Bright Supernova in Spiral Galaxy

Until now NGC 5584 was just one galaxy among many others, located to the West of the Virgo Cluster. Known only as a number in galaxy surveys, its sheer beauty is now revealed in all its glory in a new VLT image. Since 1 March, this purple cosmic rose also holds the brightest stellar explosion of the year, known as SN 2007af.

Located about 75 million light years away towards the constellation Virgo ('the Virgin'), NGC 5584 is a galaxy slightly smaller than the Milky Way. It belongs, however, to the same category: both are barred spirals.

Spiral galaxies are composed of a 'bulge' and a flat disc. The bulge hosts old stars and usually a central supermassive black hole. Younger stars reside in the disc, forming the characteristic spiral structures from which the galaxies get their name. Barred spirals are crossed by a bright band of stars. In 2000, using ESO's Very Large Telescope, astronomers discovered the smallest, faintest, and most massive spirals.

In this amazing new image of NGC 5584 two dominant spiral arms are clearly visible, while the others are deformed, probably due to interactions with other galaxies. Luminous patches are spread all over the disc, indicating that stars are being formed in this gigantic rose at a frantic pace.

Something even brighter, however, catches the eye in this picture. Any

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image taken before the end of February would not have shown the luminous spot located at the lower right of the galaxy's centre. As can be seen, the newly found object is much brighter than the centre of the galaxy itself. Its name? SN 2007af, the 32nd supernova discovered this year. Its presence signals the dramatic death of a star with a mass comparable to that of the Sun.

SN 2007af, the brightest supernova of the year (so far), was discovered on 1 March by the Japanese supernova hunter Koichi Itagaki. He pointed his 60-centimetre telescope towards the Virgo constellation and discovered something that was not there before: SN 2007af. When it was discovered, its brightness (apparent