

## Supernova SN2014J in M82

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At the time of writing (Jan 28) this type 1a supernova is at V magnitude 10.6 and still brightening. It was discovered serendipitously on 2014 Jan 21.81 UT by Steve Fossey and his students at UCL's Mill Hill Observatory in north London. At that time it was mag 11.7V. It was subsequently found at mag 14.4 on an image taken in China as early as Jan 15.8. Several pre-discovery images have since been reported which is not surprising given the popularity of this galaxy with imagers. A good lesson in checking your images promptly and carefully!

On the night following announcement of the discovery, at Jan 22.96 UT, I obtained photometry and spectroscopy of the supernova. The magnitudes measured were B = 12.78, V = 11.49, R = 10.72, I = 10.31. Figure 1 is a stack of 10 x 10 sec V filter images taken with a 0.35-m SCT.

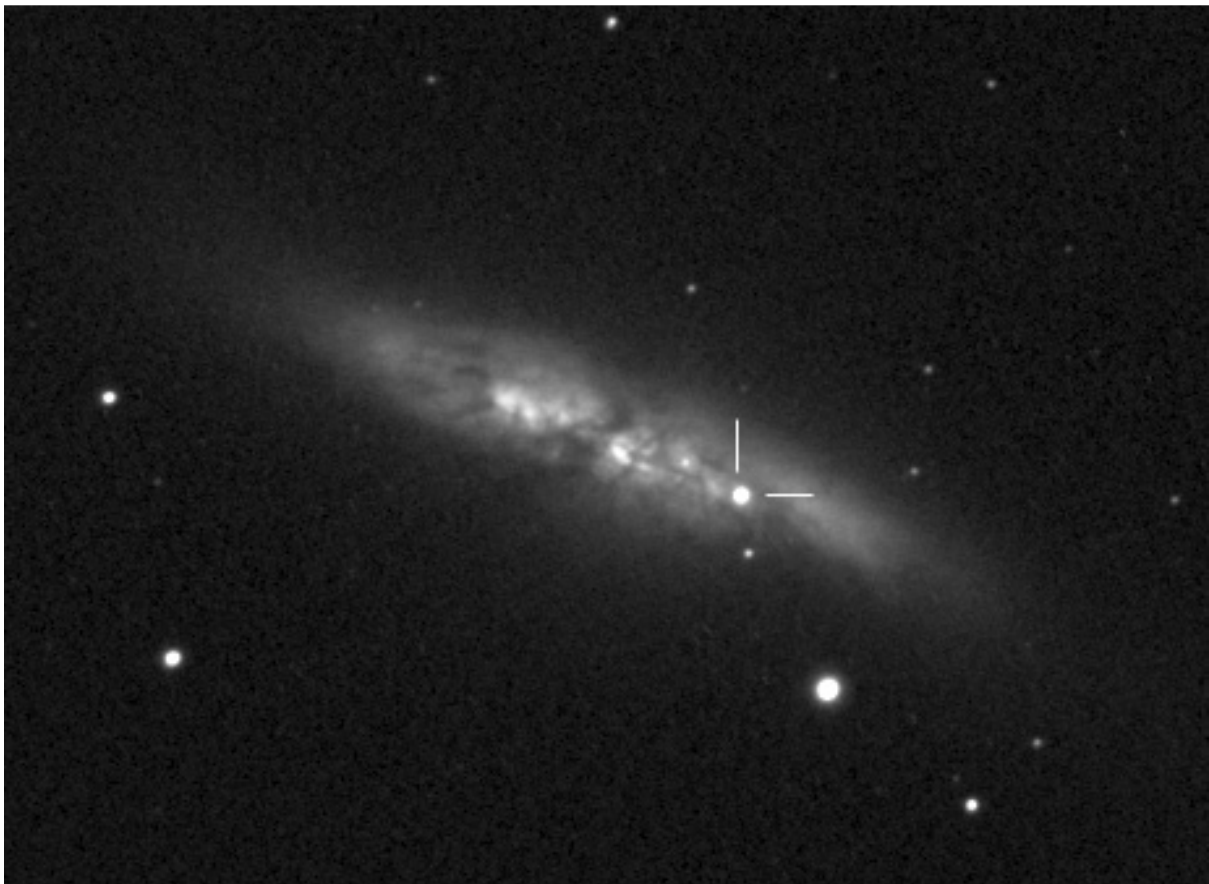


Figure 1. Stacked image of SN2014J taken on 22 January 2014.

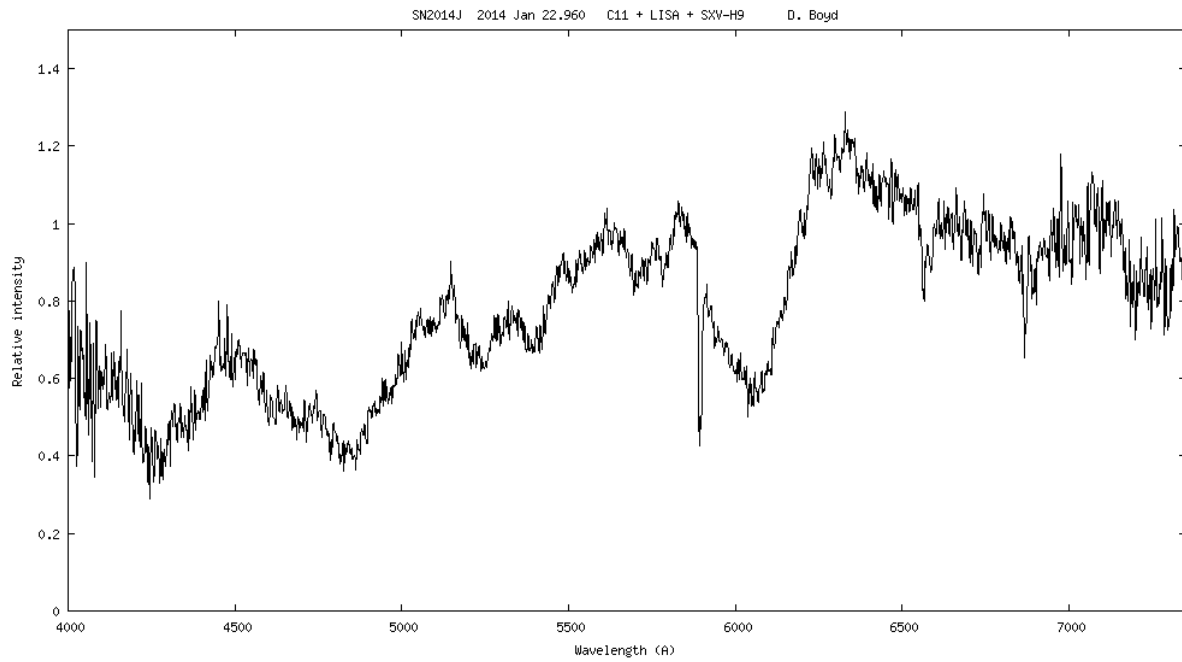


Figure 2. Spectrum of SN2014J taken on 22 January 2014.

Figure 2 shows the spectrum of the supernova taken with a LISA spectrograph on a C11 and a total integration time of 90 min. The spectrum has a red continuum and a deep dip centred on 6040Å due to the Si II line at 6355Å broadened and blue-shifted by the supernova expansion velocity of around 15,000 km/s. The strong sodium D absorption lines at 5890Å and 5896Å are caused by interstellar absorption in the host galaxy.

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