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May 1990
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Test Report:
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Computer To
Guide Your
Telescope**

The Andromeda Nebula

Cosmic-Ray Showers over Antarctica
Astrometry: New Life for an Old Art



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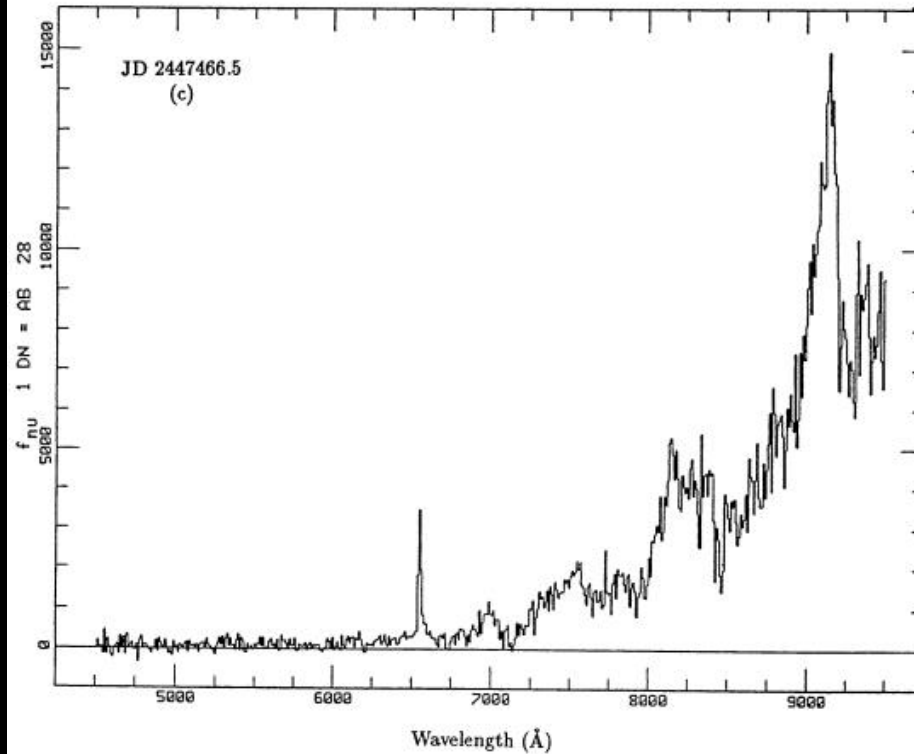
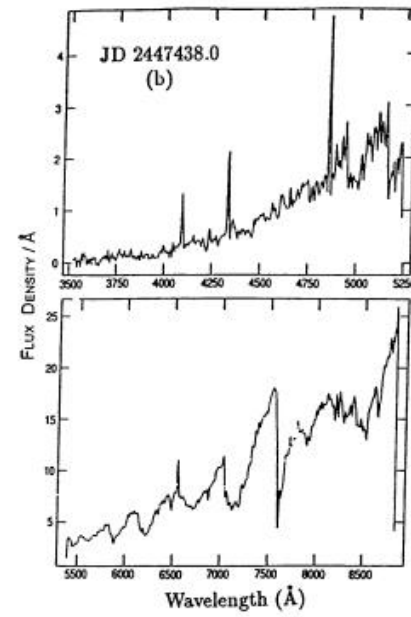
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Rich et al. (1990)

Nova-Problem (Telegramm aus Buenos Aires 1925 Nov. 26). Nova-Problem gelöst. Stern bläht sich auf, zerplatzt.
J. Hartmann.

Inhalt zu Nr 5404. *G. Shajn*. Results of observations of the colour-equivalents of double stars at Pulkovo. 49. — *N. Rudzki*. Perseidenbeobachtungen 1925. 59. — *M. Wolf*. Veränderlicher 93.1925 Librae. 63. — Entnahme scheinbarer Sternörter aus den Ephemeriden. 63. — *W. Baade*. Periodischer Komet *Schorr* (1918 III). 63. — *J. Hartmann*. Nova-Problem. 63.

Geschlossen 1925 Nov. 27. Herausgeber H. Kobold. Expedition: Kiel, Moltkestr. 80. Postscheck-Konto Nr. 6238 Hamburg 11.
Druck von C. Schaidt, Inhaber Georg Oheim, Kiel.

Hartmann, J. 1925, AN, 226, 63



David A. Hardy & PPARC

THE RED NOVA-LIKE VARIABLE IN M31—A BLUE CANDIDATE IN QUIESCENCE

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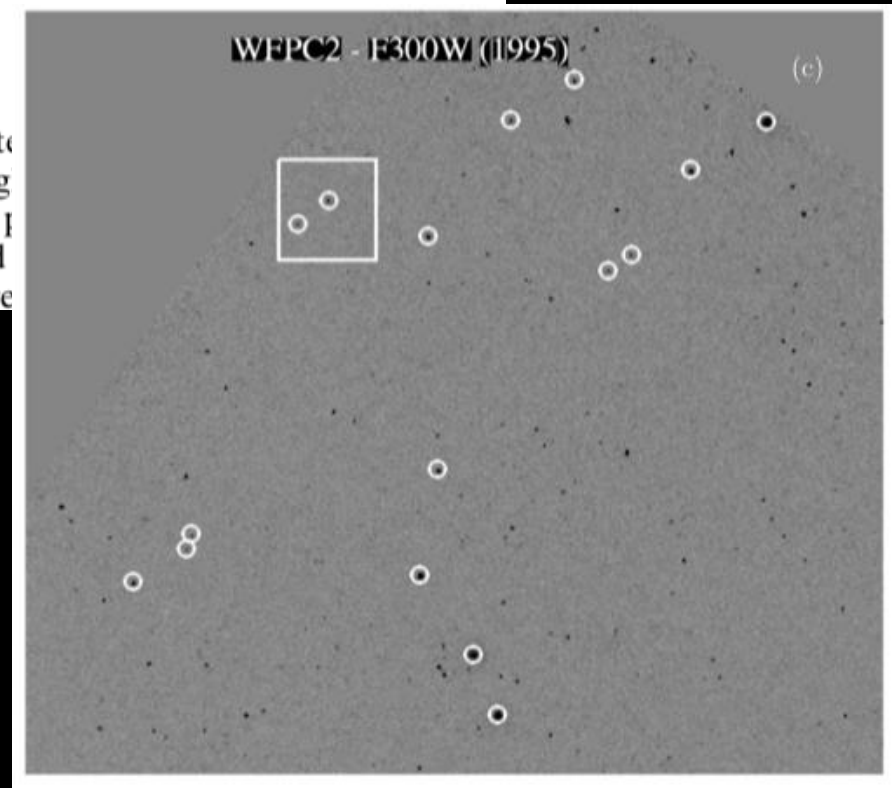
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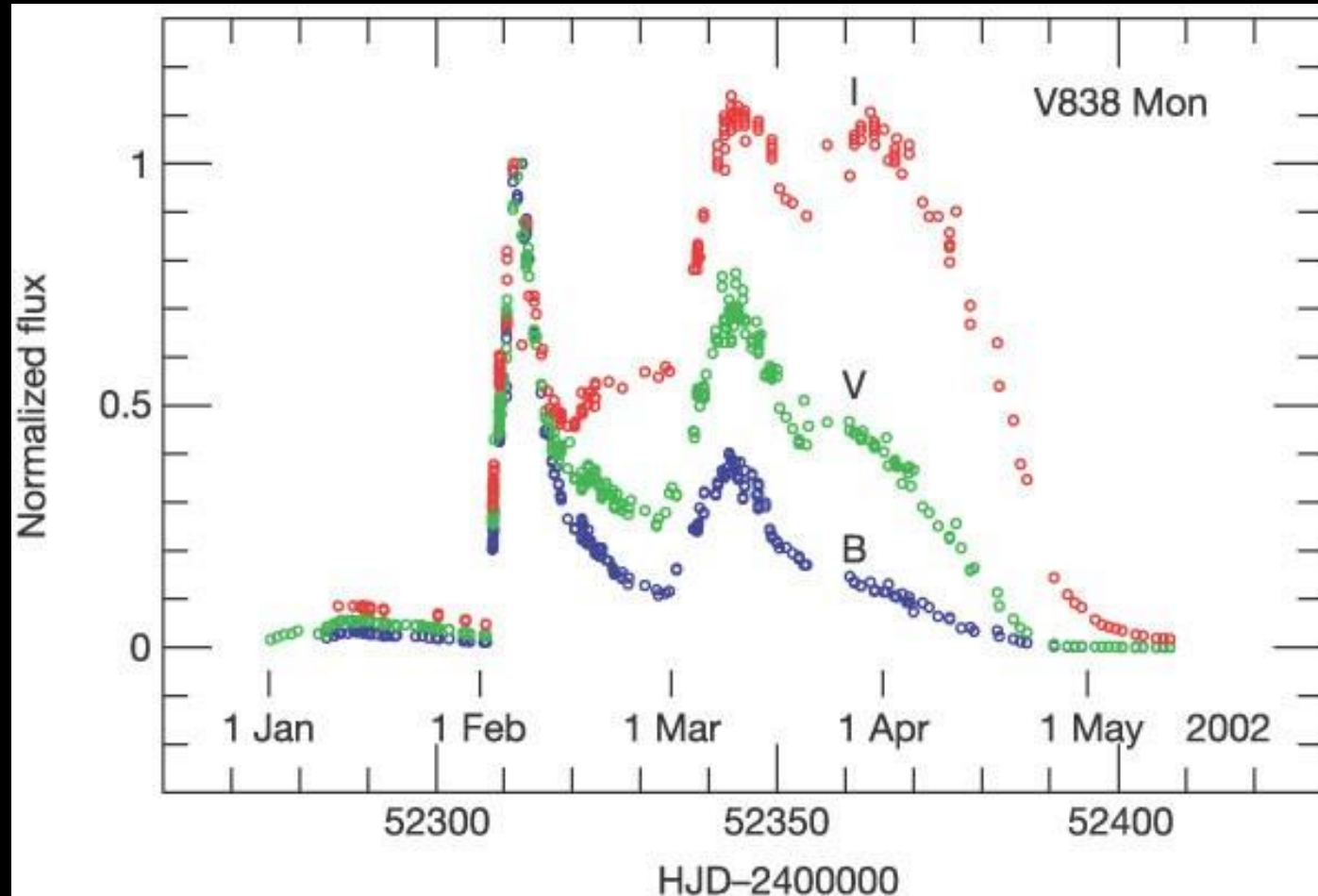
Received 2010 May 20; accepted 2010 August 27; published 2010 November 22

ABSTRACT

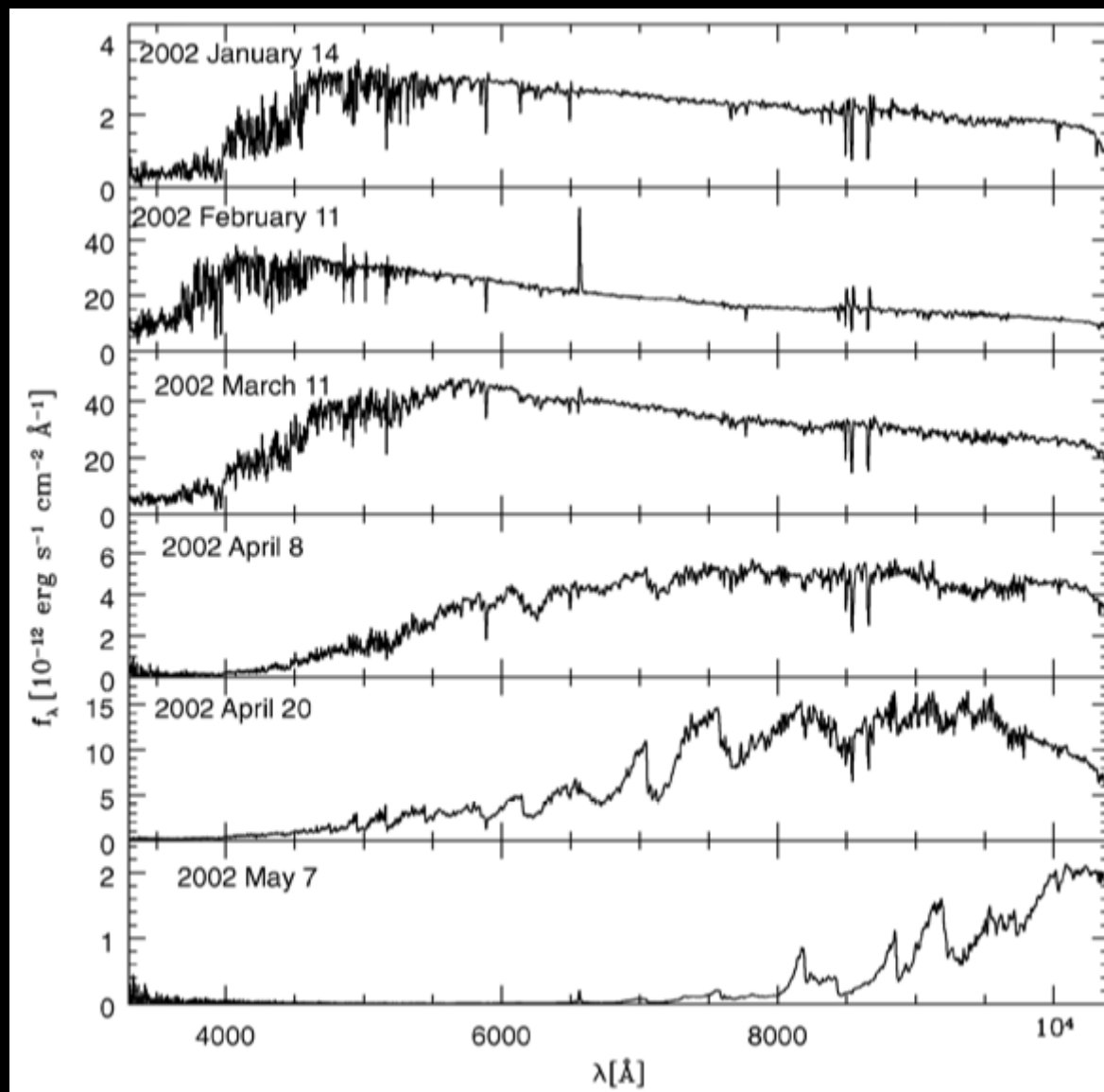
M31-RV was an extraordinarily luminous ($\sim 10^6 L_{\odot}$) eruptive variable, displaying very cool to 1000 K) as it faded. While this object's peak luminosity matched or exceeded those of the bright novae, its red colors and cool spectra were very different from those of classical novae. The discovery of M31-RV (and several other very red novae, i.e., luminous eruptive red variables) has led to this apparently new class of astrophysical object. We list these models, which predict very re

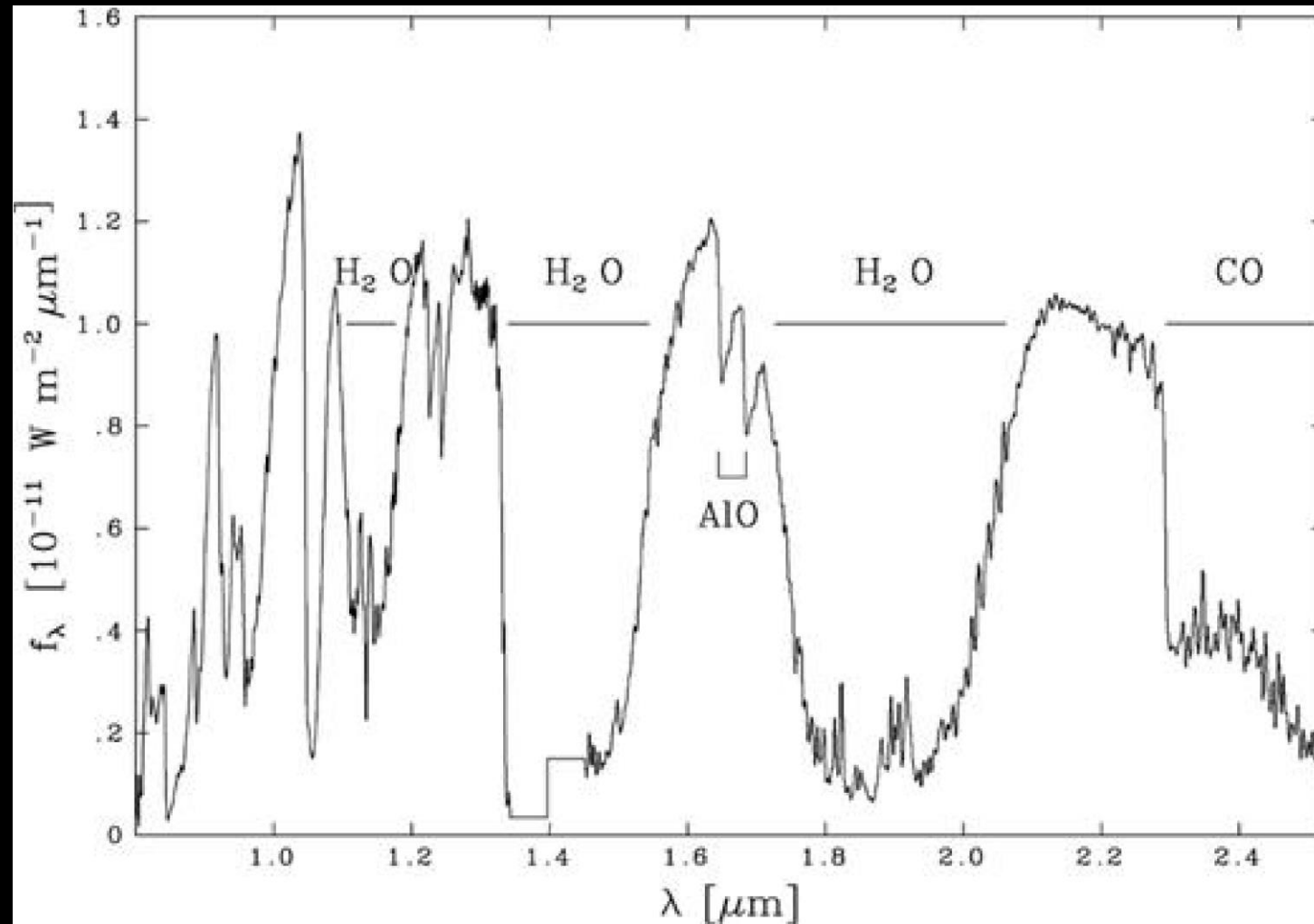






Bond et al. 2003, Nature, 422, 405





Evans et al. 2003, MNRAS, 343, 1054

Star Transforms into Coolest Known Supergiant

Press Release From: [Royal Astronomical Society](#)

Posted: Thursday, March 27, 2003

The remarkable star V838 Monocerotis could be the coolest supergiant ever observed according to new observations by a team of researchers from Keele University and the Gemini Observatory. The star's dim appearance after an episode of rapid expansion is due to its exceptionally low temperature and not a concealing veil of dust as previously thought.

The team have been monitoring this unusual object with the United Kingdom Infrared telescope (UKIRT), since an Australian amateur astronomer, Nicholas J. Brown, found it in the throes of an outburst of light on 6 January 2002. This marked the start of an extraordinary change to the star over a remarkably short time. Initially a normal-looking star, V838 Mon expanded into a cool supergiant in just a few months. The transformation was marked by three episodes of brightening, followed by a dramatic fade. At the time, a logical explanation for the fading seemed to be obscuring dust that could have formed from material expelled when the star puffed up. But a spectrum obtained in March 2002 was characteristic of a typical cool supergiant star with a surface temperature around 4000 Kelvin.

Due to the motion of the Earth around the Sun, V838 Mon was too close to the Sun in the sky to permit further observations until October 2002. The infrared spectrum obtained on 28 October 2002, which is due to be published in the Monthly Notices of the Royal Astronomical Society, showed the star had cooled significantly in the 7 months since March. "The spectrum was reminiscent of the coolest of all stellar-like objects - brown dwarfs. It corresponded to a surface temperature little more than 1000 Kelvin, well within the temperature range of brown dwarfs," says Mark Rushton. "Decreasing surface temperature, rather than dust, was mainly responsible for the dramatic fade from view."

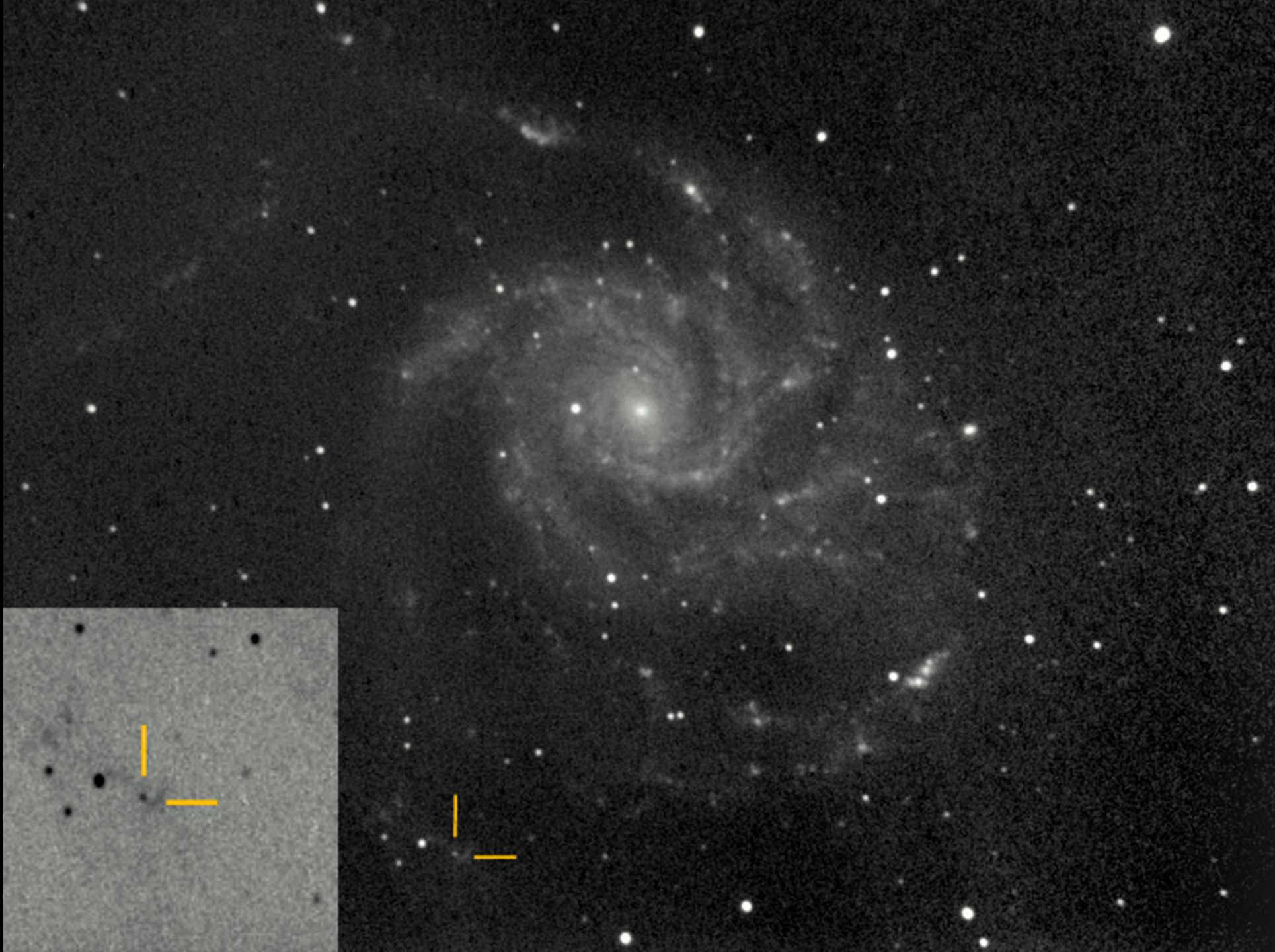




Bond et al. 2003, Nature, 422, 405

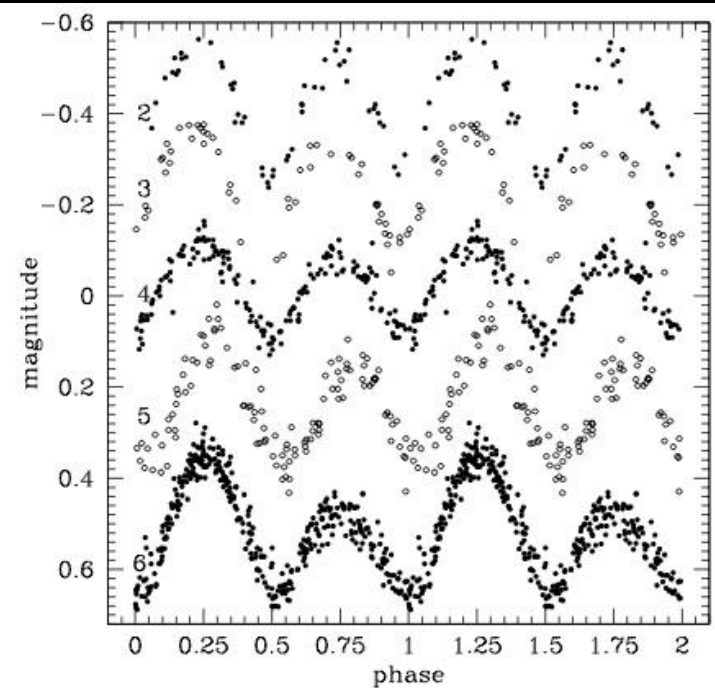
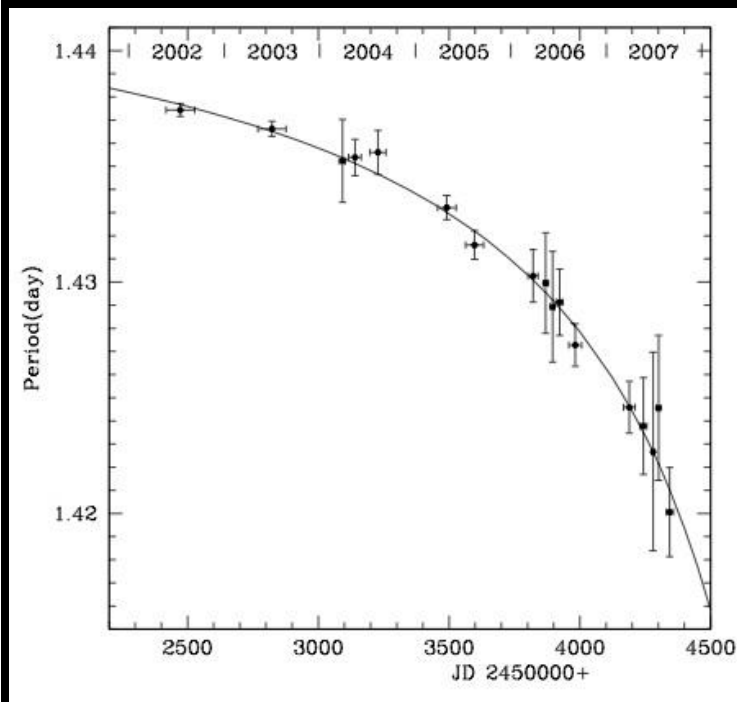
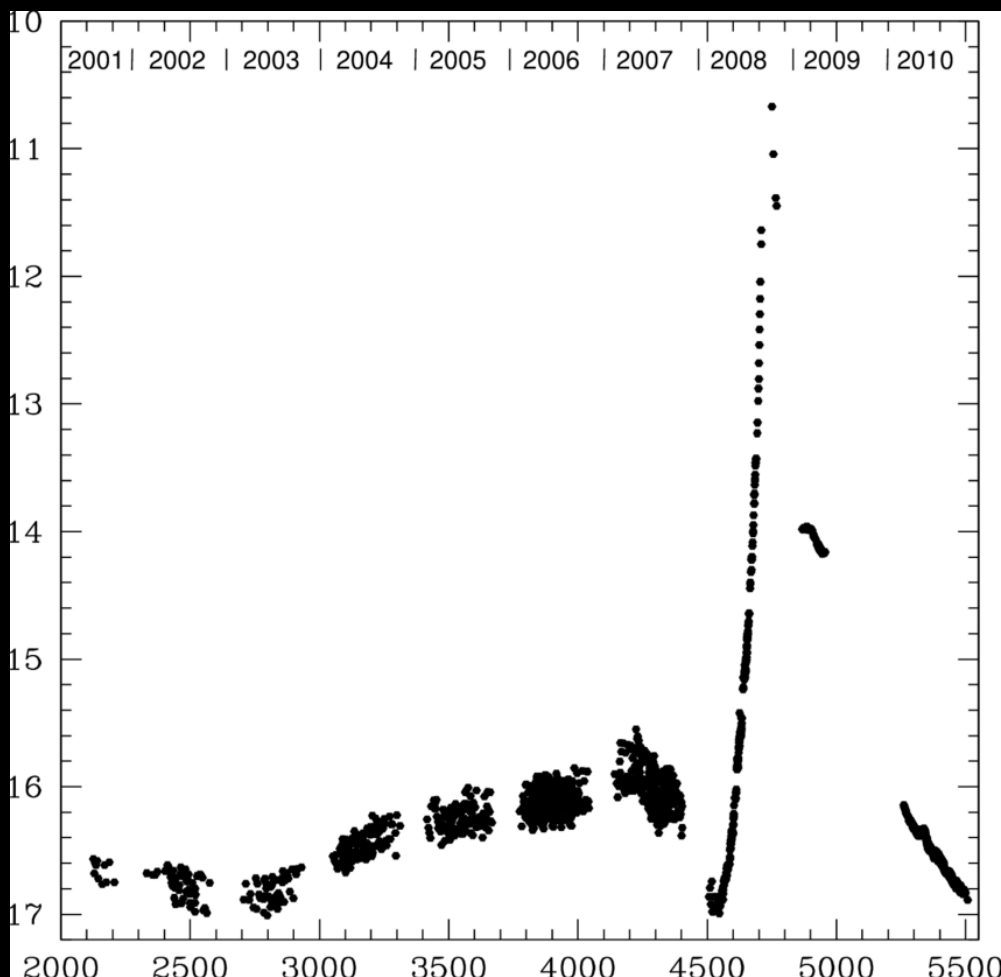


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Tylenda et al. 2011, A&A, 528, 114

KIC 9832227

How to See a Star Explode in 2022

For the first time, astronomers are confidently predicting how to see this type of brilliant blast, which will be visible with the naked eye.

BY NADIA DRAKE



PUBLISHED JANUARY 6, 2017 • 7 MIN READ

For those of you hoping to witness the predicted stellar explosion we describe in this story, we have bad news. [Analysis of archival data](#) released on September 7, 2018, suggests that the two stars expected to collide and die in 2022 will not, in fact, go out in a rare blaze of scheduled glory. Instead, as San Diego State University's Quentin Socia reports, a typographical error in the archived orbits of these stars misled the original calculation by suggesting that instead of being a relatively stable cosmic duo, the stars were quickly making tighter and tighter spirals around one another. Unfortunately, after correcting that typo, it no longer appears as though the stars are destined to merge and produce a rare red nova, a result that original study author Larry Molnar agrees with.

Molnar et al. 2017, ApJ, 840, 1

Two stars will NOT merge and explode into red fury in 2022

Well, two stars may merge somewhere, but probably not the two stars you were thinking of.

By Jake Parks | Published: Friday, September 7, 2018



This image shows V838 Mon, which exploded as a "red nova" in January 2002, suddenly becoming 600,000 times brighter than our Sun. A similar explosion was expected to occur in 2022, but the unprecedented prediction recently fell through.

NASA and The Hubble Heritage Team (AURA/STScI)

It's time to face a hard truth. Good science is mostly about meticulously testing informed predictions. And, sadly, these predictions often fall flat.