

SN 2017eaw: una supernova da amatori

Andrea Mantero - Bernezzo Observatory - MPC C77 - AAVSO MAND

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Patrick Wiggins - Tooele - UTAH - USA



14 Maggio 2017

UT 05:42:43



Discovery certificate for object 2017eaw

TNS Astronomical Transient Report No. 11511

Date Received (UTC): 2017-05-14 09:09:08

Sender: Mr. Patrick Schmeer

Patrick Wiggins report/s the discovery of a new astronomical transient.

IAU Designation: **SN 2017eaw**

Coordinates (J2000): RA = 20:34:44.24 (308.684333) DEC = +60:11:35.90 (60.193306)

Discovery date: 2017-05-14 05:42:43 (JD=2457887.7379977)

Potential host galaxy: NGC 6946

Remarks: P. Wiggins, Tooele, UT, USA, reports his discovery of a possible supernova (mag about 12.8) on an unfiltered CCD frame taken 2017 May 14.2383 UT using a 0.35-m f/5.5 reflector near Erda, UT, USA. The new object is located at R.A. 20h34m44.24s, Decl. +60°11'35.9" (equinox 2000.0), about 153" NW of the center of NGC 6946. The discovery image was posted temporarily at URL <http://users.wirelessbeehive.com/~paw/ngc6946-1.jpg>. Wiggins notes that nothing was visible at this position on an image taken on May 12.

Photometry

Discovery (first detection):

Discovery date: 2017-05-14 05:42:43

Flux: 12.8 Other

Filter: Clear-

Instrument: Other

Telescope: Other



Di IAU and Sky & Telescope magazine (Roger Sinnott & Rick Fienberg) - [1], CC BY 3.0,
<https://commons.wikimedia.org/w/index.php?curid=15406373>

NGC 6946

Galassia Spirale

Costellazione Cigno – Cefeo

Scoperta da William Herschel

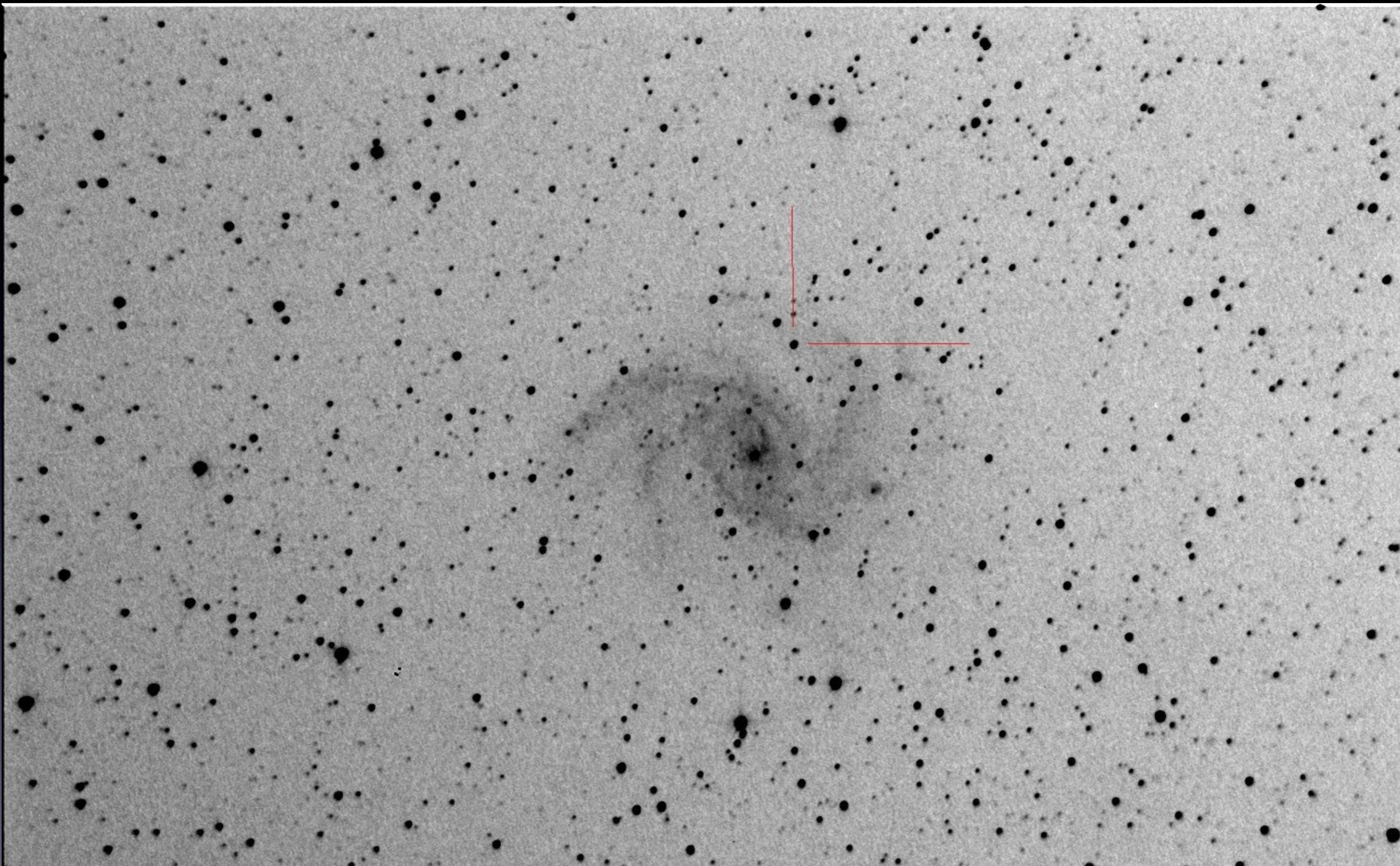
Ascensione Retta 20 h 34 m 52 s

Declinazione +60° 09' 13''

Distanza 6.9 Mpc - 22 milioni AL

Fireworks Galaxy





SN 2017eaw NGC 6946 (Type SN IIP)

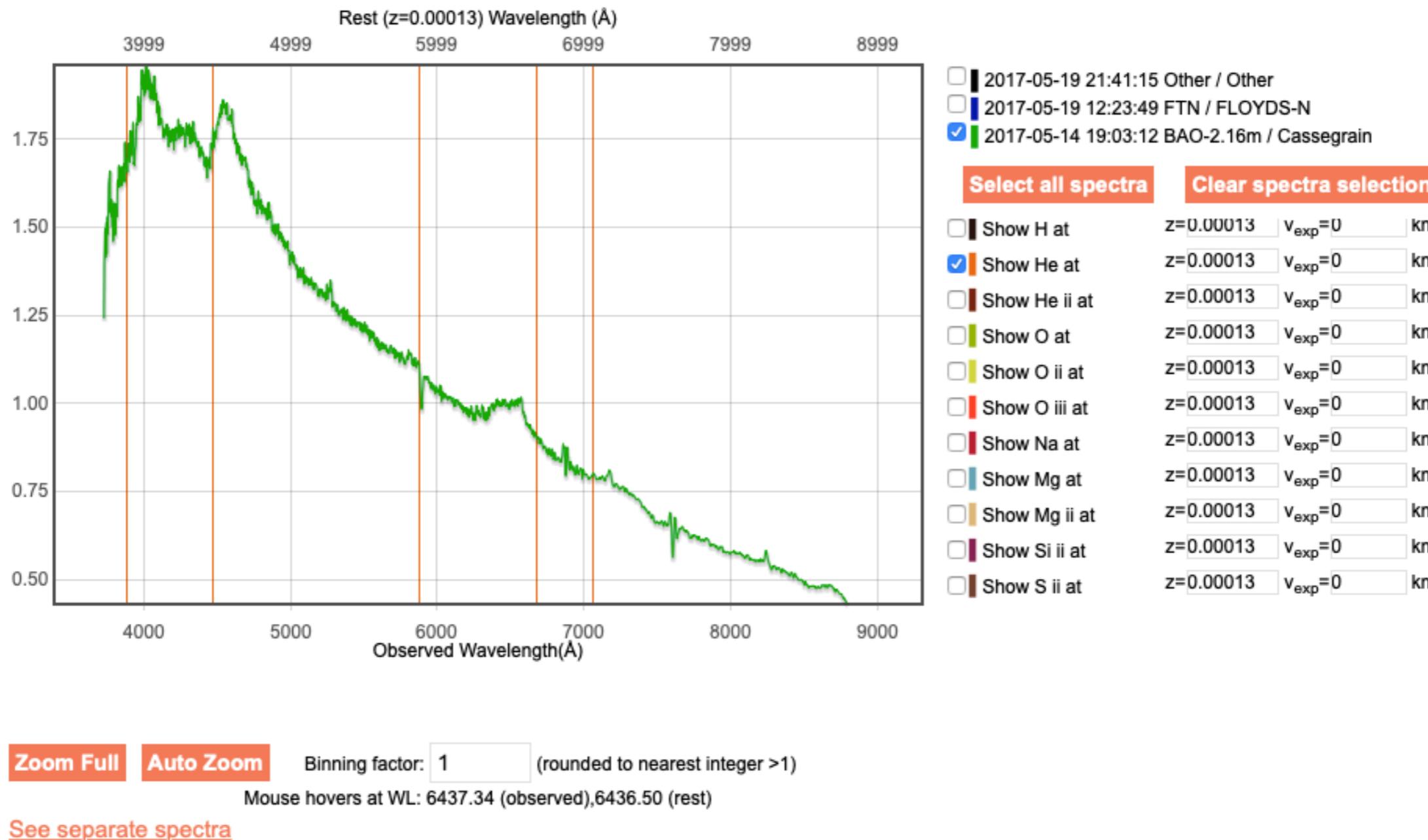
2017.05.14.91296

Photometry V= 13.073 +/- 0.007 (reference V mags from APASS)

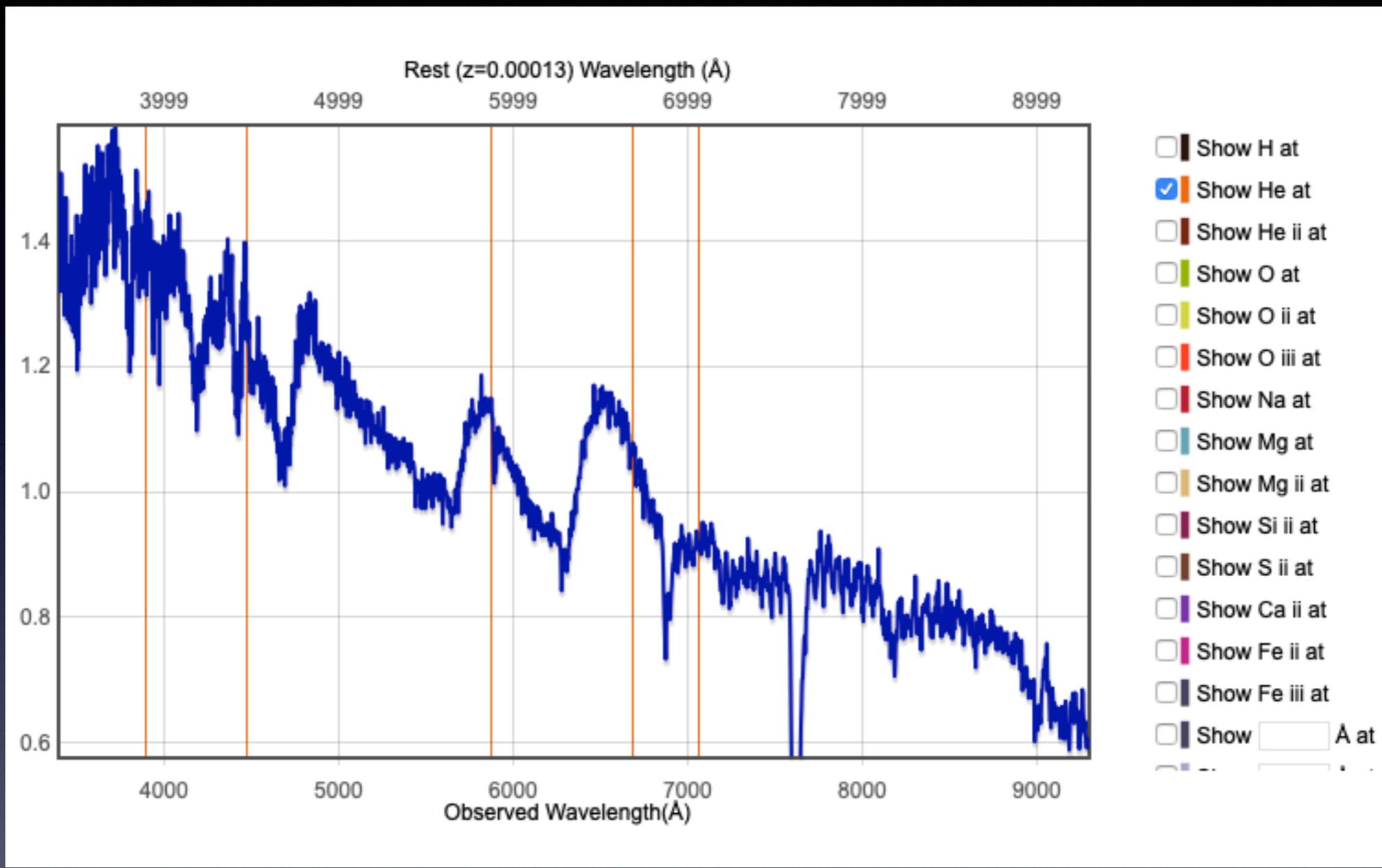
0,25-m.f/4 reflector+ccd

A.Mantero

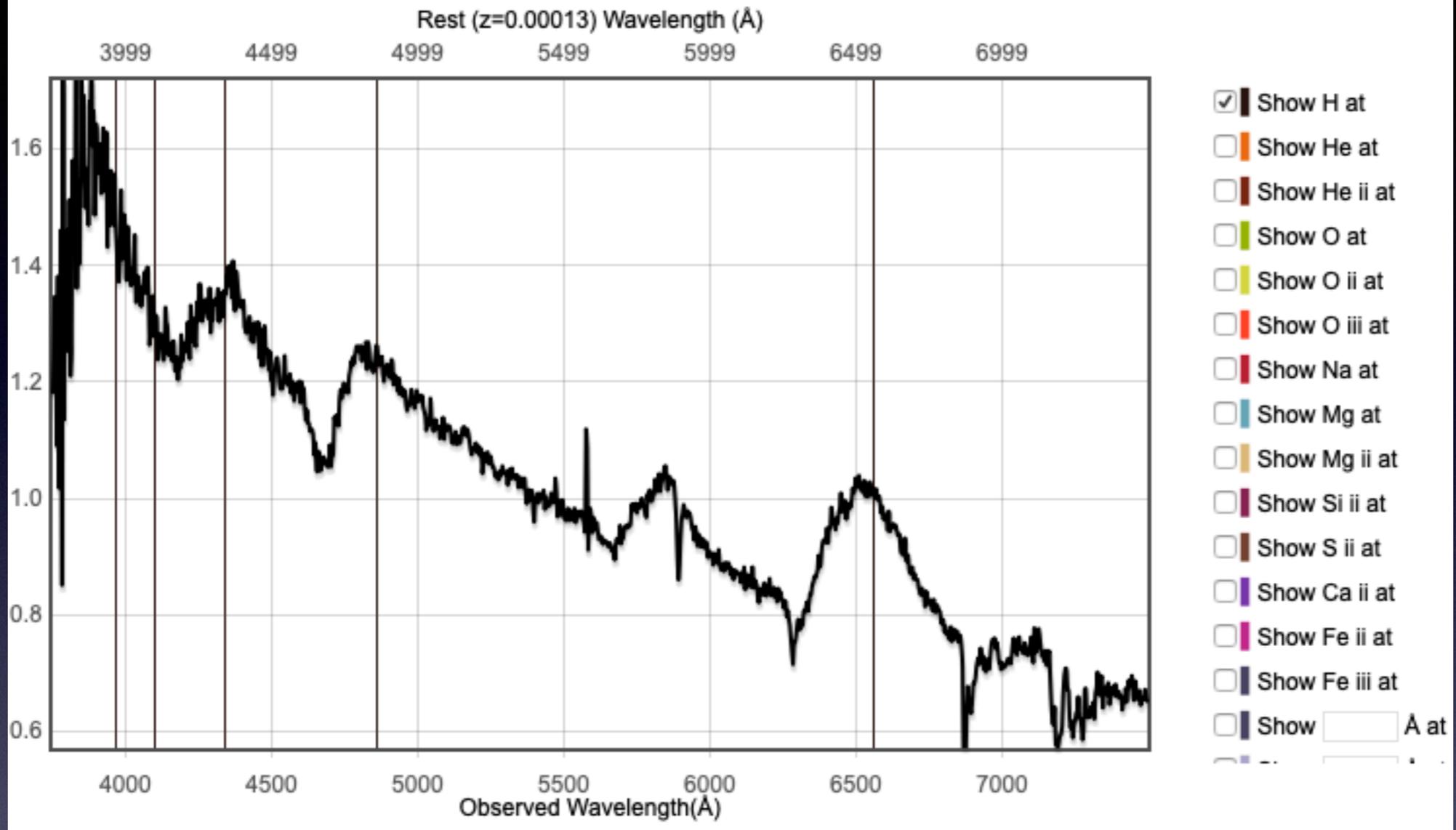
Bernezzo Observatory



D. Xiang, L. Rui, X. Wang(THU), F. Xiao(NAOC), J. Fu(BNU), T. Zhang(NAOC),
 J. Zhang(YNAO) report/s a classification of object: **SN 2017eaw**
 Type: SN IIP



Las Cumbres Observatory - California - USA

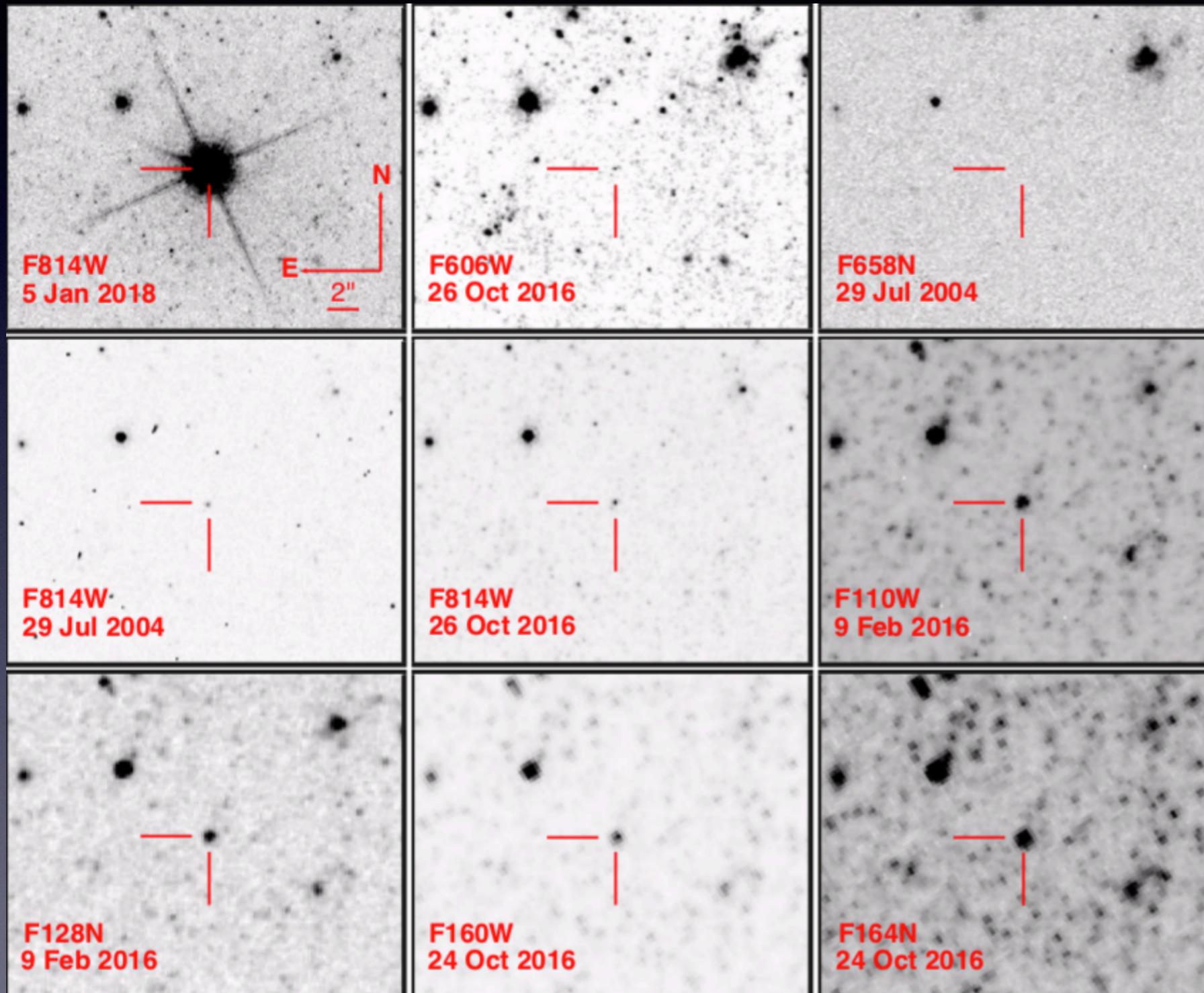


Daniel Verihac - Francia

The Dusty Progenitor Star of the Type II Supernova 2017eaw

Charles D. Kilpatrick^{1*} and Ryan J. Foley¹

¹Department of Astronomy and Astrophysics, University of California, Santa Cruz, CA 95064, USA

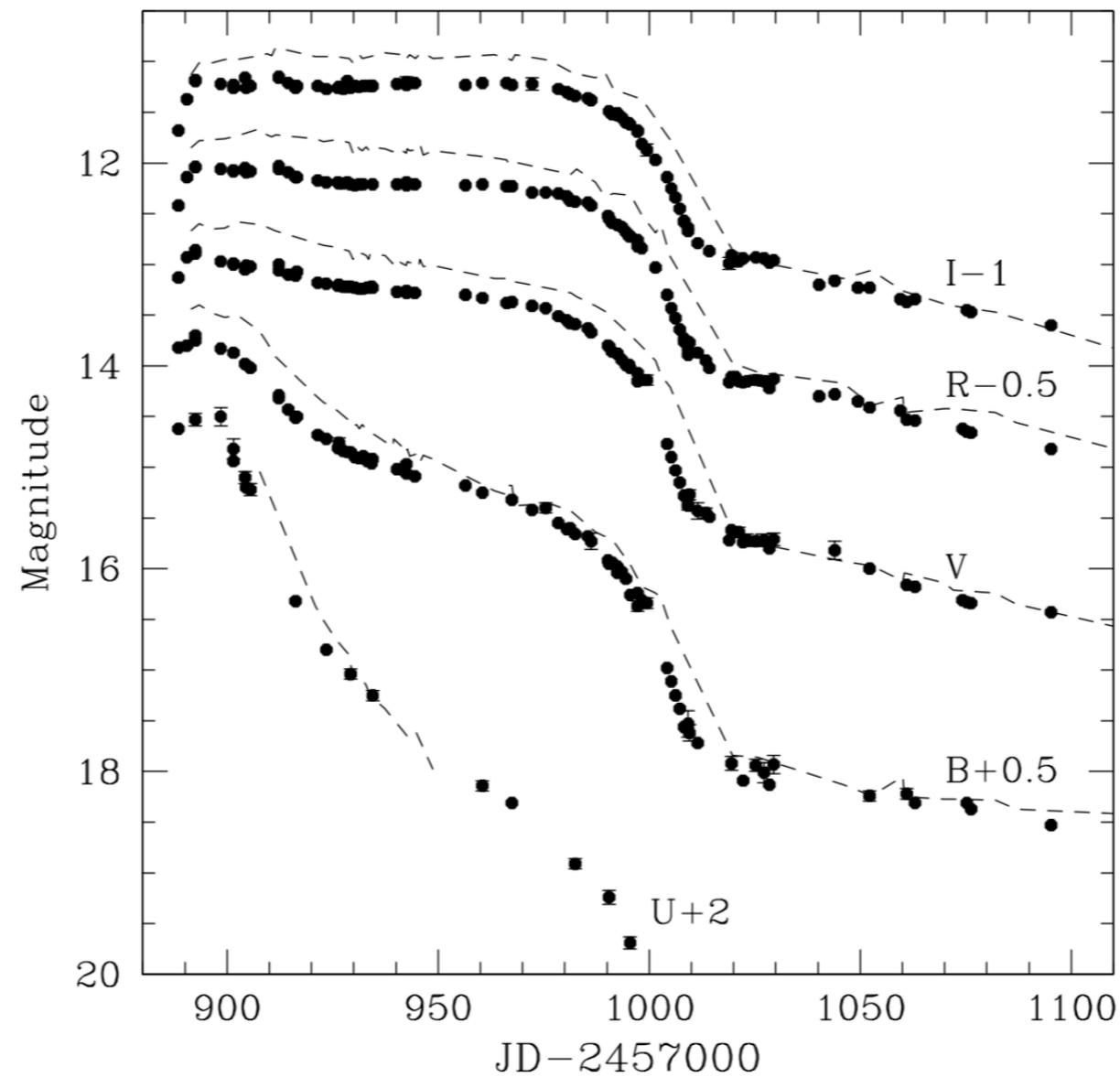


(SN II) 2017eaw in NGC 6946. We use a *Hubble Space Telescope* (*HST*) image of SN 2017eaw to perform relative astrometry with *HST* and *Spitzer Space Telescope* (*Spitzer*) imaging, finding a single point source consistent with its position. We detect the progenitor star in >40 epochs of *HST* and *Spitzer* imaging covering 12.9 years to 43 days before discovery. While the progenitor luminosity was roughly constant for most of this period, there was a ~20% increase in its 4.5 μm luminosity over the final 3 years before explosion. We interpret the bright mid-infrared emission as a signature of circumstellar dust around the progenitor system. Using the pre-explosion photometry and assuming some circumstellar dust, we find the progenitor is most likely a red supergiant with $\log(L/L_{\odot}) = 4.9$ and $T = 3350 \text{ K}$, obscured by a $>2 \times 10^{-5} M_{\odot}$ dust shell with $R = 4000 R_{\odot}$ and $T = 960 \text{ K}$. Comparing to single-star evolutionary tracks, we find that the progenitor star had an initial mass of $13 M_{\odot}$ and a mass-loss rate of 2

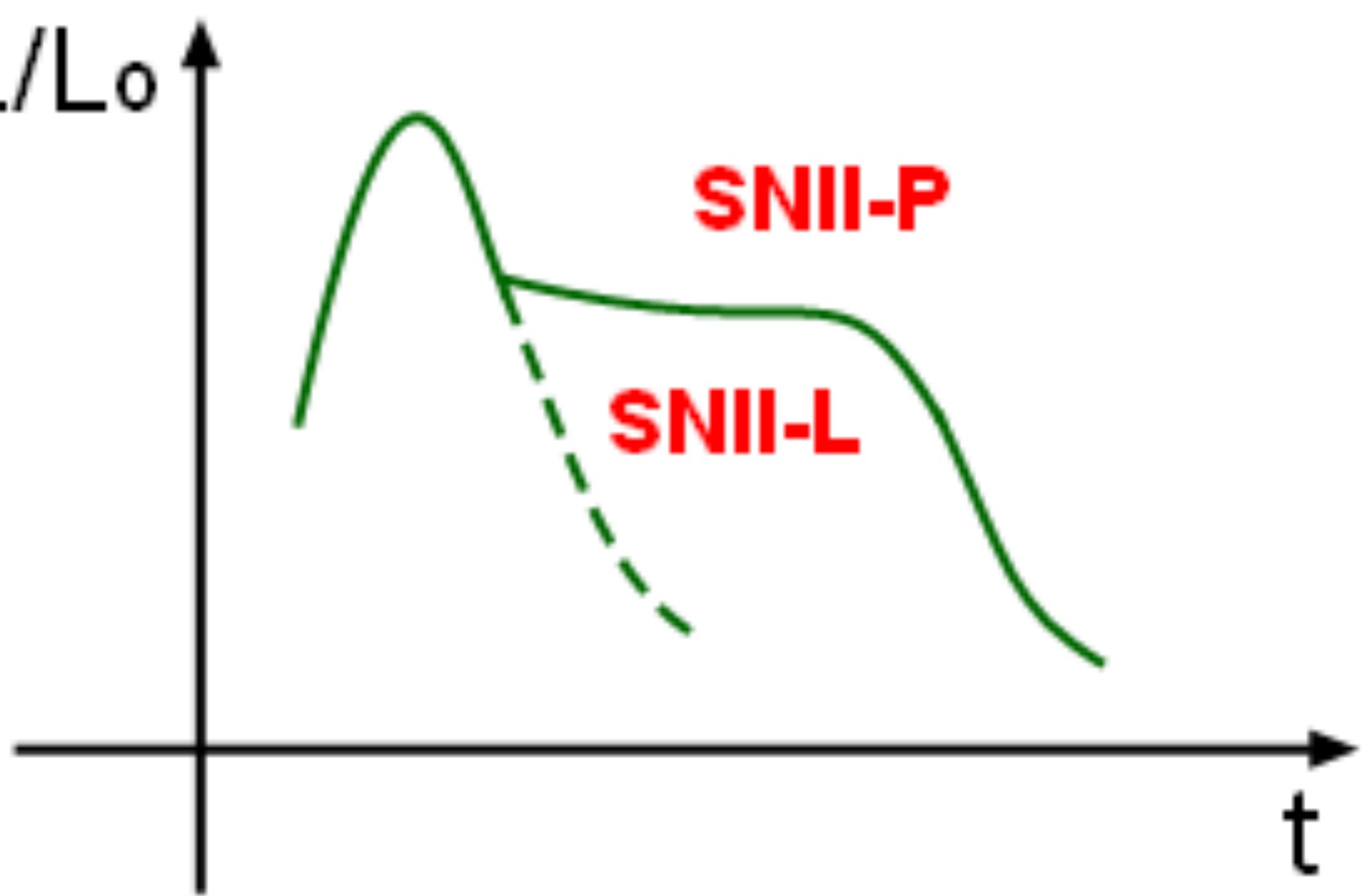
The light curves of type II-P SN 2017eaw: first 200 days

D.Yu. Tsvetkov¹, S.Yu. Shugarov^{1,2}, I.M. Volkov¹,
N.N. Pavlyuk¹, O.V. Vozyakova¹, N.I. Shatsky¹,
A.A. Nikiforova^{3,4}, I.S. Troitsky³, Yu.V. Troitskaya³,
P.V. Baklanov^{5,6,7}

January 3, 2018



L/L_0



SNII-P

SNII-L

t

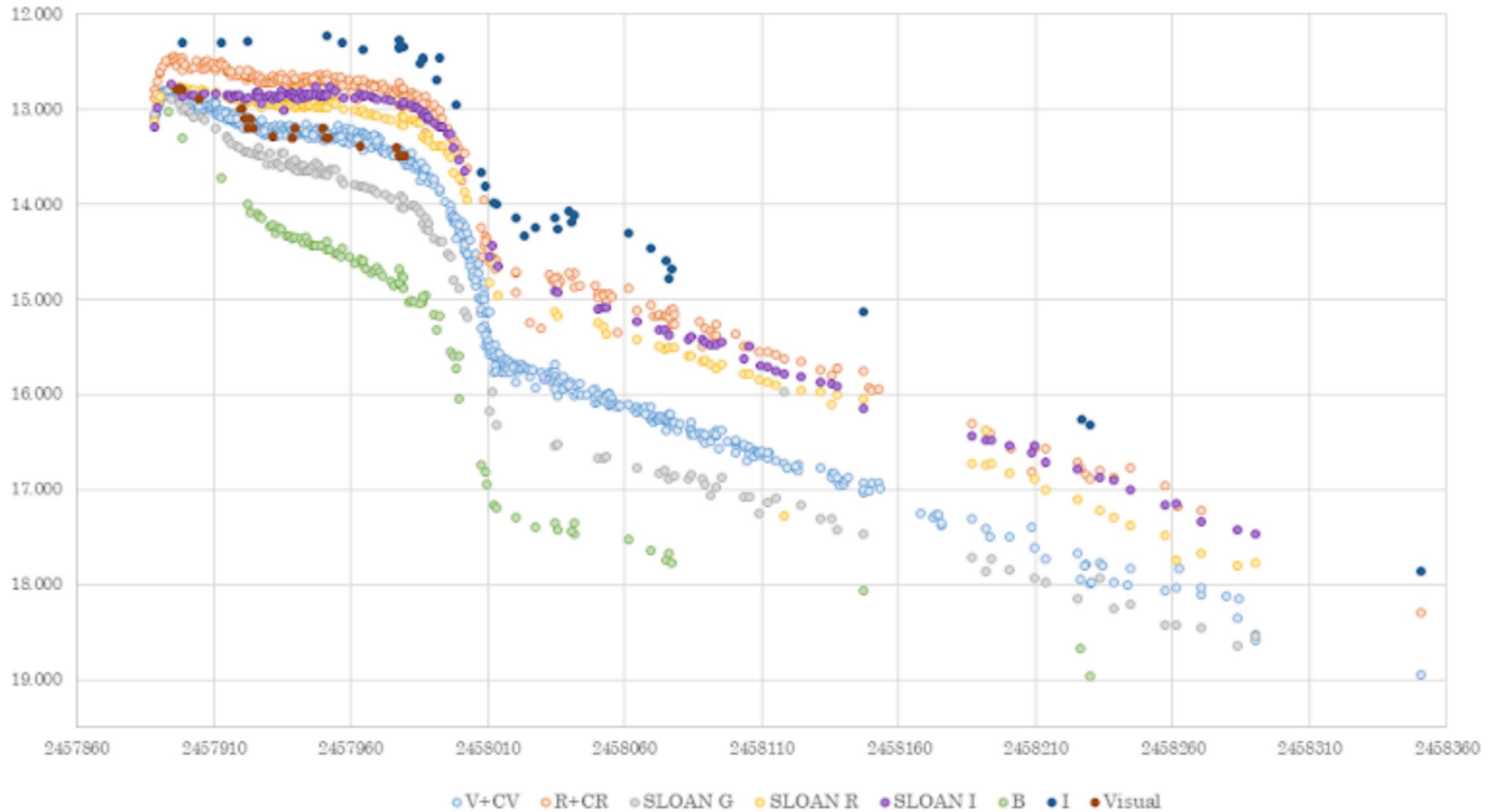


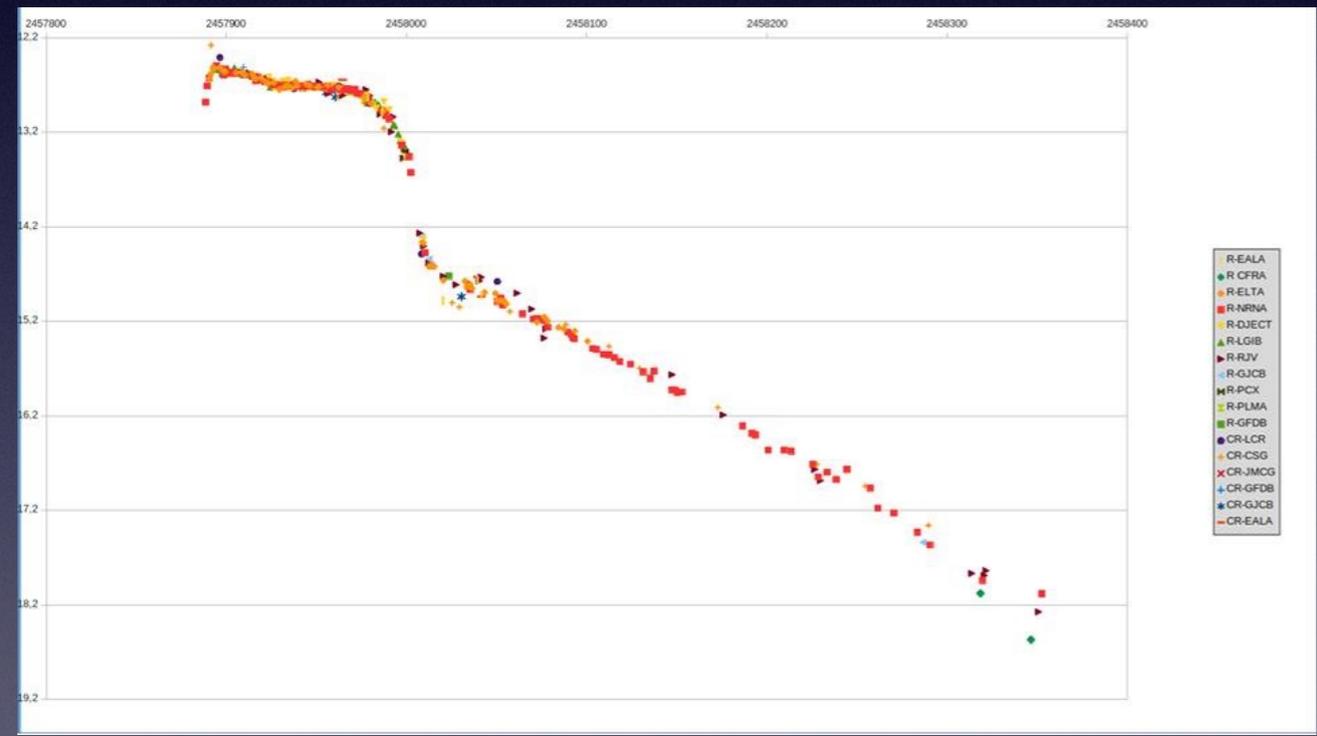
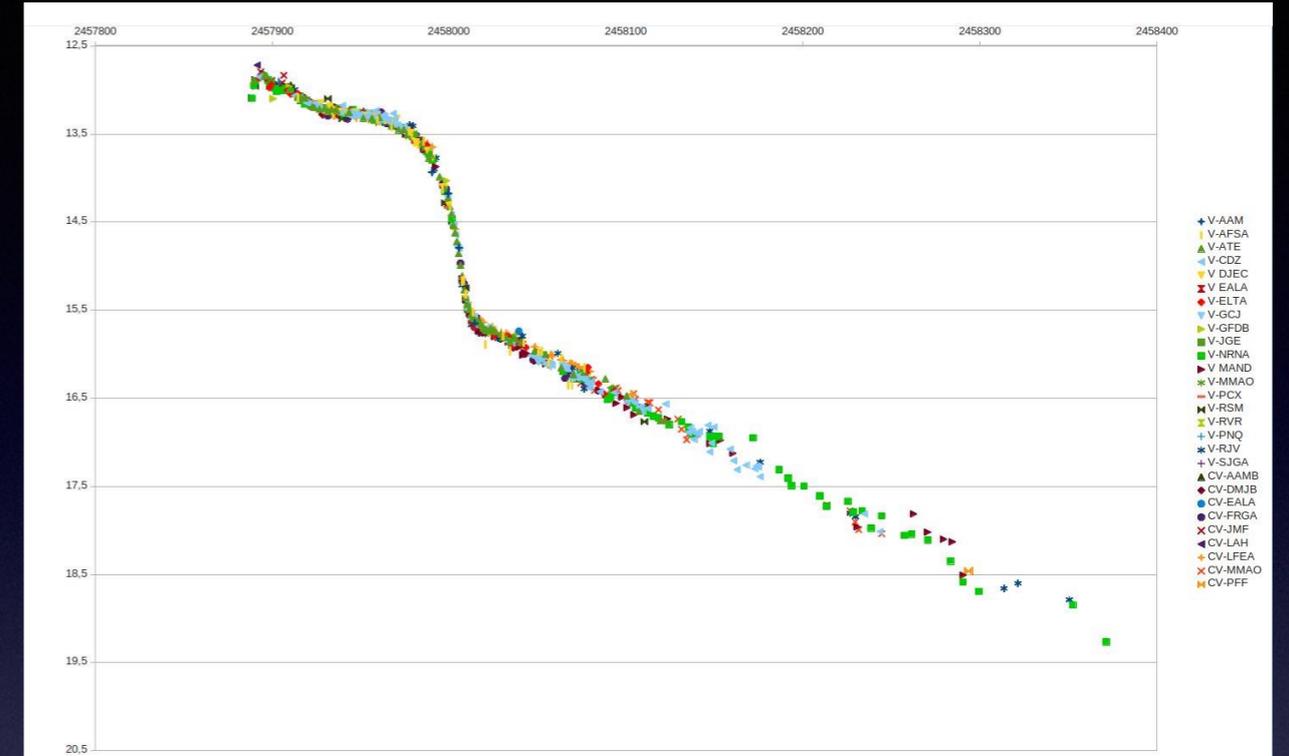
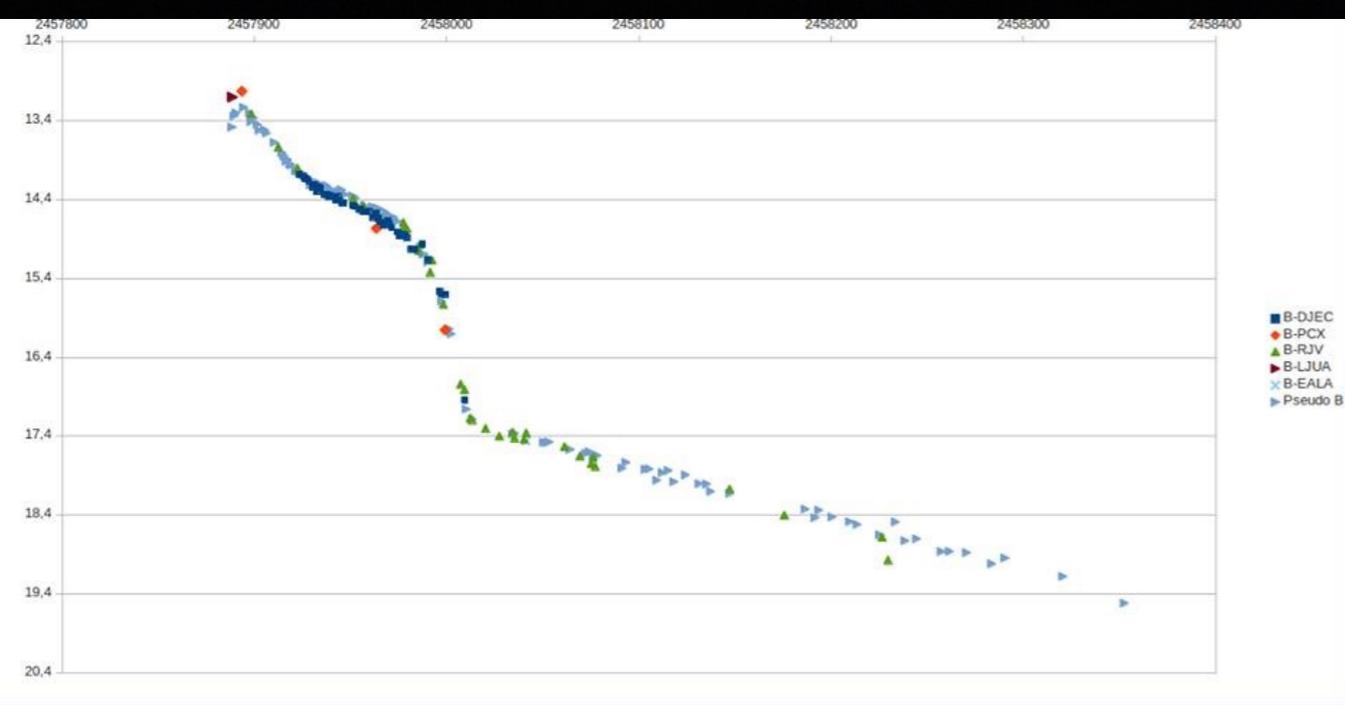
SN2017 eaw

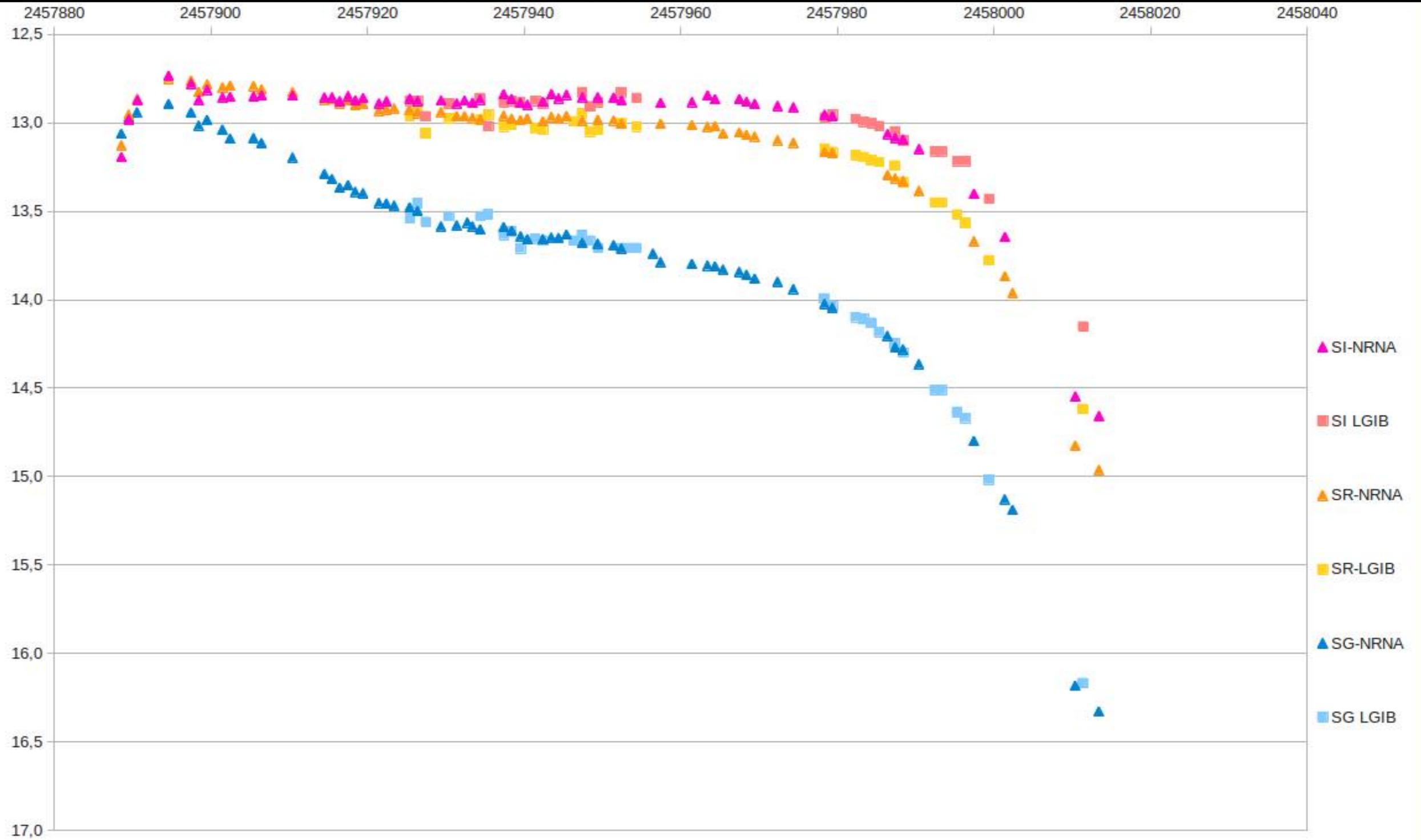
Bienvenidos a la página web del grupo de Observadores de Supernovas (ObsN) dedicada al seguimiento de supernovas y otros fenómenos transitorios de interés. En ella podrás encontrar información y noticias sobre los últimos objetos observados, así como enviar tus medidas fotométricas, ver una recopilación de imágenes y consultar la secuencia fotométrica de la AAVSO para ellas. **Accede a través del menú de la parte superior.**



SN 2017eaw - MULTIBANDA







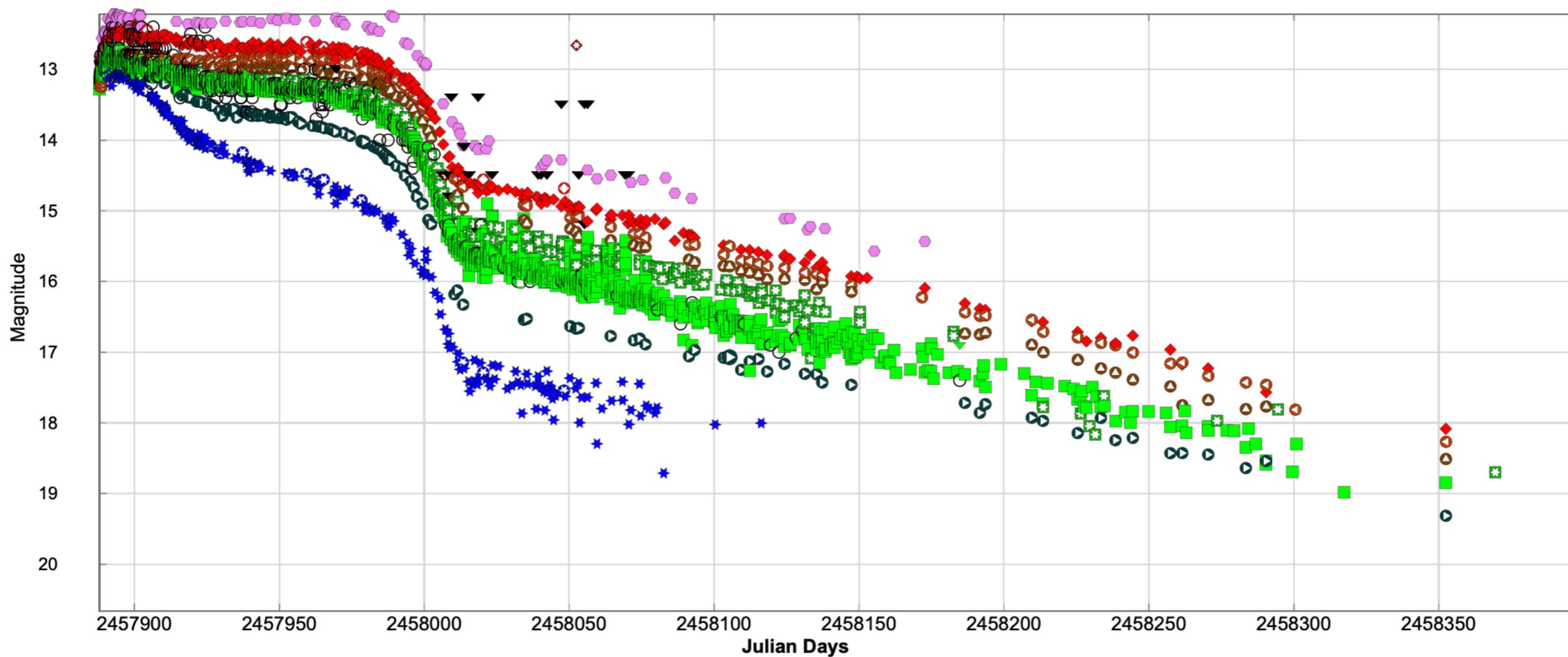
Curva di luce in banda Sloan g r i
Ramón Naves – Gianpiero Locatelli



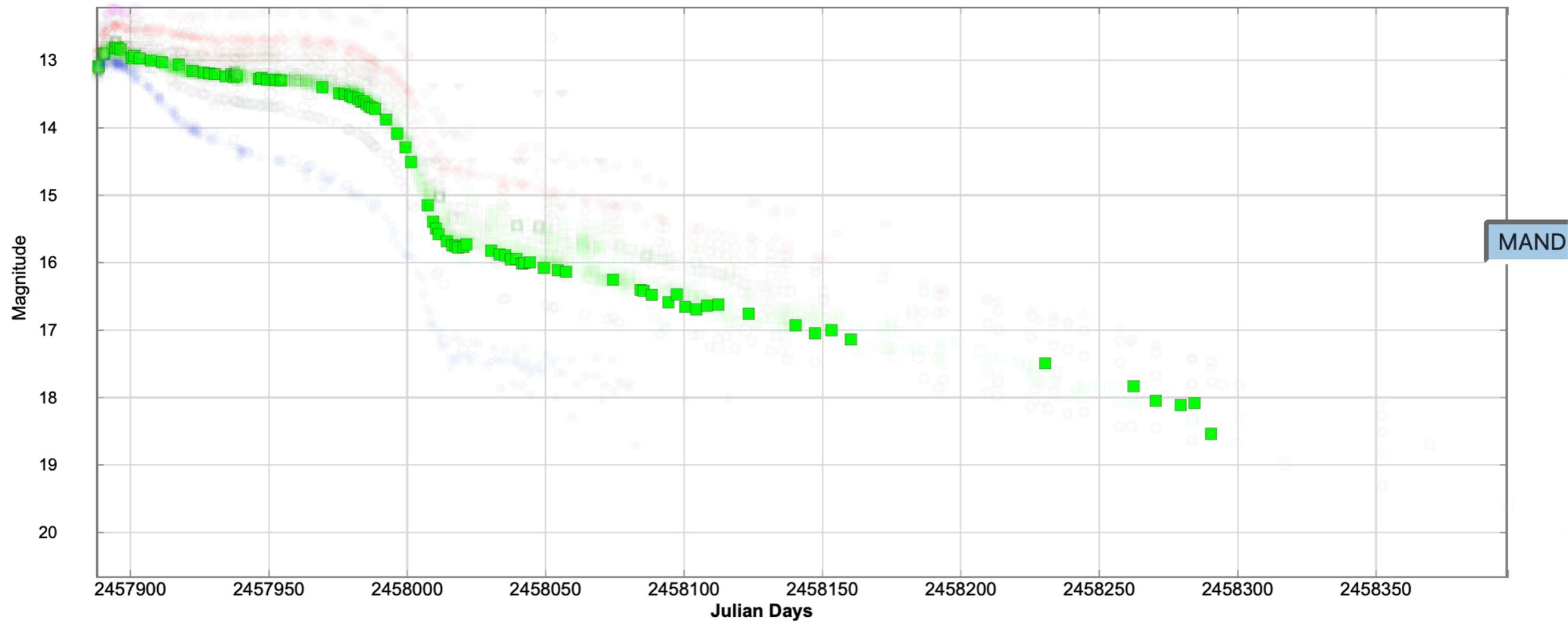
AAVSO

American Association of Variable Star Observers

:All (4185) (419) Vis (24) Faint (366) B (2023) V (339) R (122) I (423) CV (2) CR (18) TB (24)

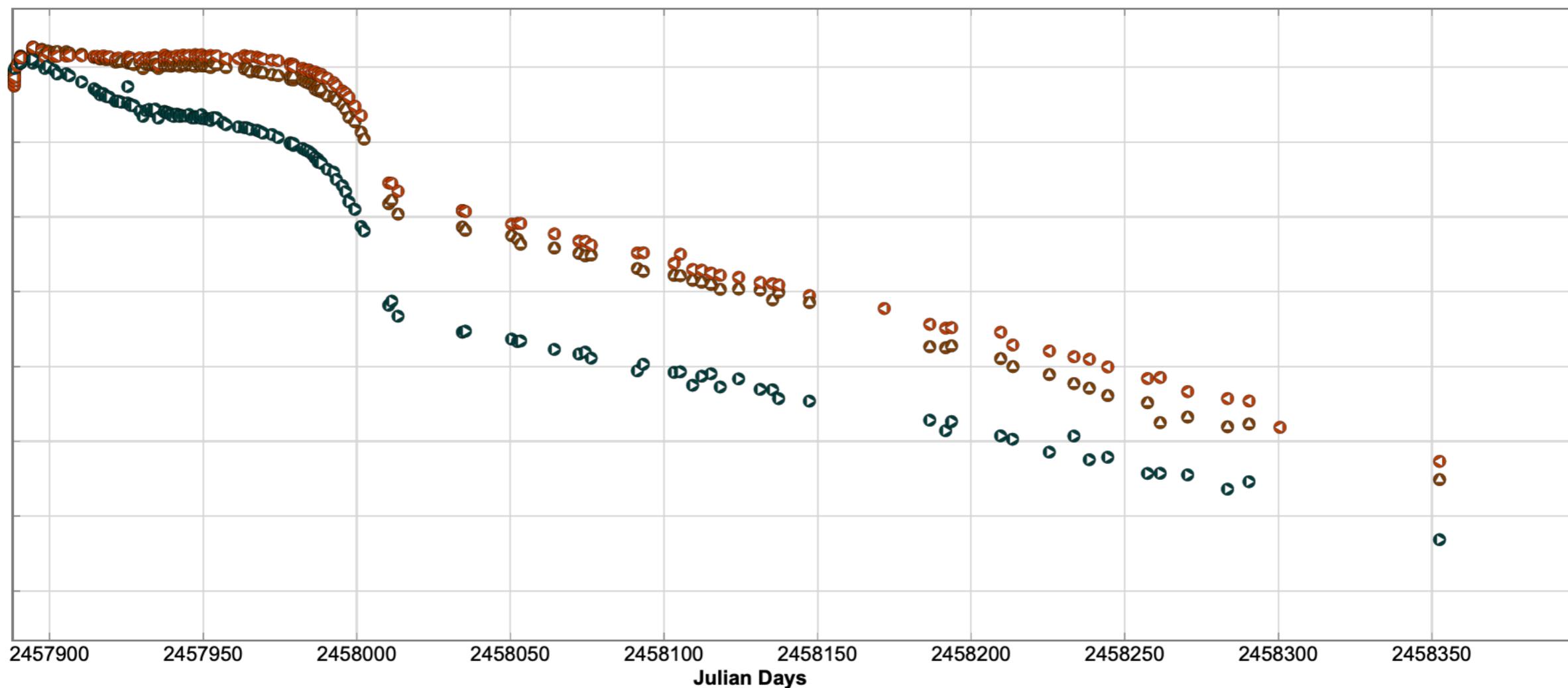


All (4185) (419) Vis (24) Faint (366) B (2023) V (339) R (122) I (423) CV (2) CR (18) IB (24)



Curva di Luce banda V - Andrea Mantero in AAVSO

◆(339) □R ◆(122) □I ◆(423) □CV ◆(2) □CR ◆(18) □TB ◆(24) □TG ◆(18) □TR ◆(146) ✓SG ◆(143) ✓SR ◆(142) ✓SI



Curva di Luce Banda Sloan g r i
 Naves - Locatelli in AAVSO

