

# \* NOVA \*

N. 1472 - 13 FEBBRAIO 2019

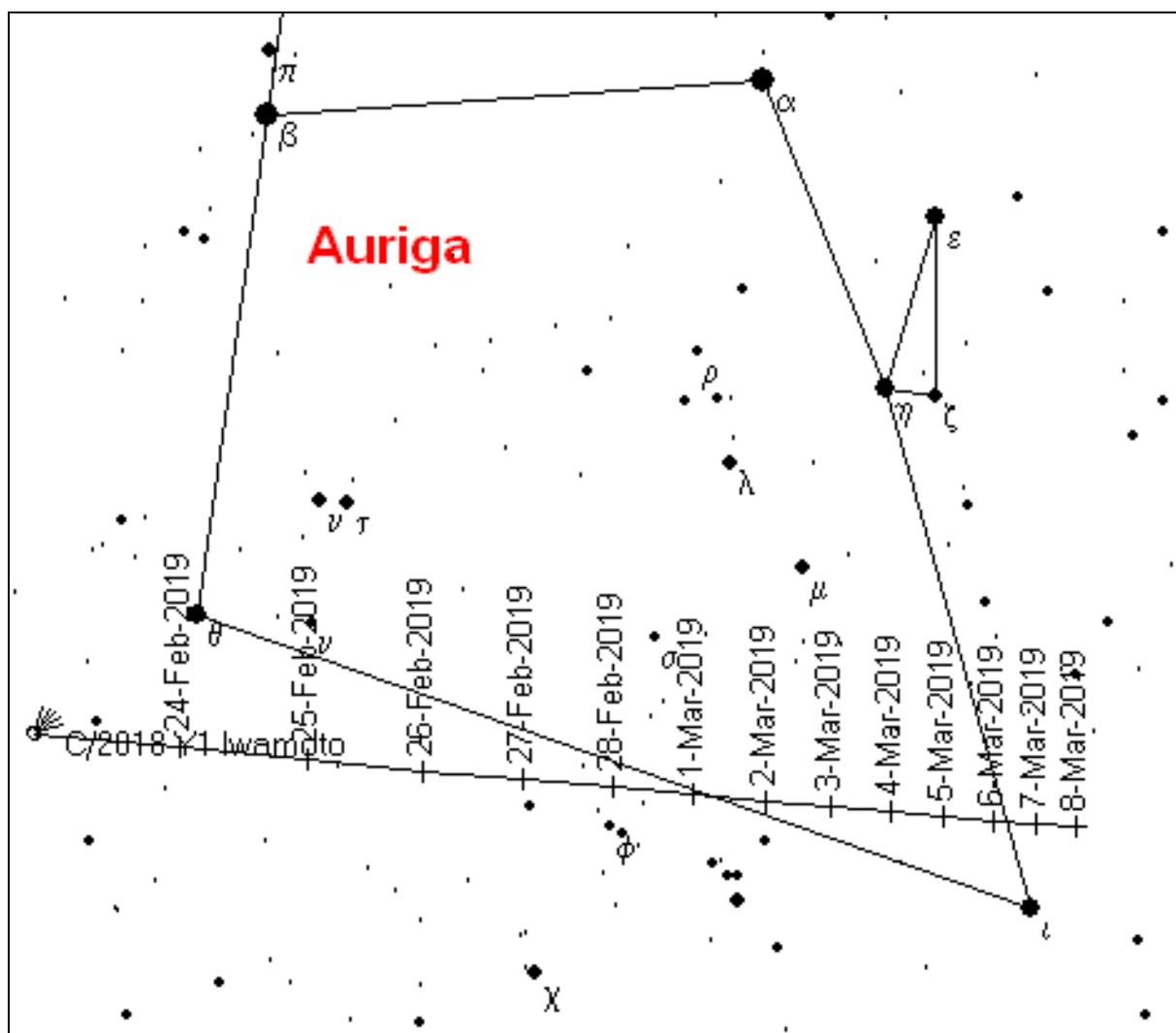
ASSOCIAZIONE ASTROFILI SEGUSINI

## COMETA IWAMOTO (C/2018 Y1)

Scoperta il 18 dicembre 2018 dall'astrofilo giapponese Masayuki Iwamoto (già scopritore di due comete, la C/2018 V1 e la C /2013 E2), la cometa Iwamoto (C/2018 Y1) è passata al perielio il 7 febbraio, a 1.3 UA dal Sole, e transiterà a 45 milioni di km (0.3 UA) dalla Terra il 12-13 febbraio.

La cometa proviene da oltre la fascia di Kuiper: viene dalla regione degli Extreme Trans-Neptunian Objects (ETNOs), cinque volte più lontano dal Sole di quanto lo sia Plutone. La cometa percorre un'orbita fortemente ellittica in 1371 anni: il precedente passaggio vicino al Sole è stato verosimilmente intorno al 648 e il prossimo dovrebbe avvenire nel 3390.

I dati sulla magnitudine della cometa sono discordanti, ma potrebbe essere visibile con piccoli telescopi, meglio senza la presenza della Luna. Ecco una nostra cartina e le effemeridi nelle prossime pagine.



La cartina mostra le posizioni della cometa Iwamoto (C/2018 Y1) alle ore 22 CET nelle date dal 23 febbraio al 7 marzo 2019, senza la presenza della Luna in cielo. Una cartina di *Astronomy Now* del percorso della cometa dal 10 al 20 febbraio 2019 è su [https://mk0astronomynow9oh6g.kinstacdn.com/wp-content/uploads/2019/02/Comet\\_2018\\_Y1\\_Iwamoto\\_10-20Feb19.pdf](https://mk0astronomynow9oh6g.kinstacdn.com/wp-content/uploads/2019/02/Comet_2018_Y1_Iwamoto_10-20Feb19.pdf)

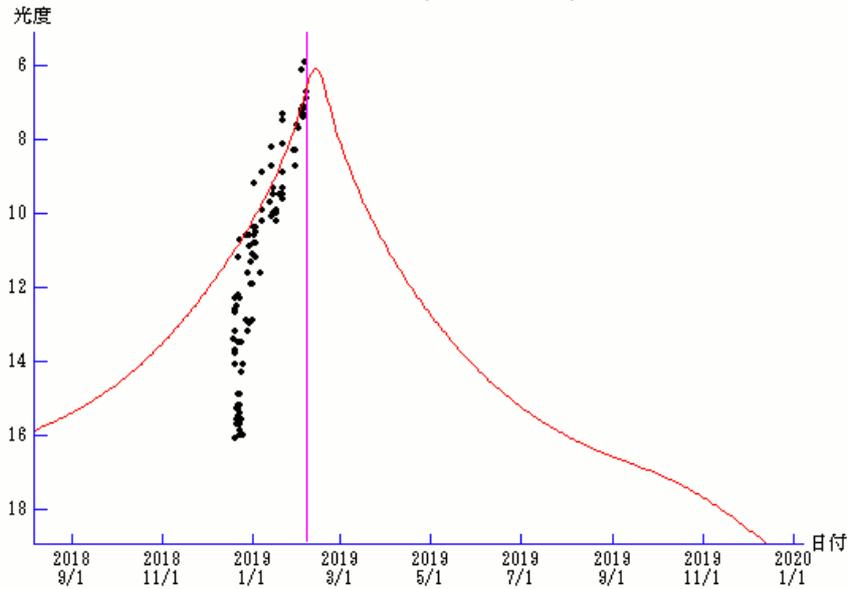
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[www.astrofiliisusa.it](http://www.astrofiliisusa.it)

C/2018 Y1 ( Iwamoto )



Curva di luce della cometa Iwamoto (C/2018 Y1), dal sito di Seiichi Yoshida,  
<http://www.aerith.net/comet/catalog/2018Y1/2018Y1.html>

<https://www.minorplanetcenter.net/iau/mpec/K18/K18Y52.html>

<https://www.minorplanetcenter.net/iau/mpec/K19/K19C15.html>

<http://www.aerith.net/comet/catalog/2018Y1/2018Y1.html>

<https://www.heavens-above.com/comet.aspx?cid=C%2F2018%20Y1&lat=45.142%20&lng=7.142&loc=476+Grange+Obs.&alt=0&tz=CET>

```
*****
Ephemeris / WWW_USER Sat Feb 9 11:32:26 2019 Pasadena, USA / Horizons
*****
Target body name: Iwamoto (C/2018 Y1) {source: JPL#6}
Center body name: Earth (399) {source: DE431}
Center-site name: Grange Observatory, Bussoleno
*****
Start time : A.D. 2019-Feb-23 21:00:00.0000 UT
Stop time : A.D. 2019-Mar-08 21:00:00.0000 UT
Step-size : 1440 minutes
*****
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```
*****
Date (UT) HR:MN R.A. (ICRF/J2000.0) DEC Azi (a-appr) Elev T-mag N-mag delta deldot S-O-T /r
*****
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Date (UT) HR:MN	R.A. (ICRF/J2000.0)	DEC	Azi (a-appr)	Elev	T-mag	N-mag	delta	deldot	S-O-T /r
2019-Feb-23 21:00	06 10 33.62	+35 04 37.6	247.5541	70.0701	12.30	15.15	0.52283520589207	54.0496269	116.9095 /T
2019-Feb-24 21:00	05 59 48.12	+35 10 08.3	252.6615	67.6888	12.44	15.32	0.55440241354578	55.4501166	113.7317 /T
2019-Feb-25 21:00	05 50 16.56	+35 11 58.6	256.5749	65.4181	12.58	15.48	0.58669279434639	56.5922035	110.8074 /T
2019-Feb-26 21:00	05 41 49.43	+35 11 12.5	259.6908	63.2742	12.72	15.63	0.61957176792491	57.5217617	108.1017 /T
2019-Feb-27 21:00	05 34 18.35	+35 08 37.5	262.2532	61.2572	12.85	15.77	0.65292836926346	58.2754635	105.5848 /T
2019-Feb-28 21:00	05 27 36.04	+35 04 48.1	264.4182	59.3606	12.98	15.90	0.68667050196762	58.8826298	103.2317 /T
2019-Mar-01 21:00	05 21 36.21	+35 00 09.8	266.2893	57.5750	13.11	16.02	0.72072116597016	59.3667599	101.0211 /T
2019-Mar-02 21:00	05 16 13.51	+34 55 01.1	267.9374	55.8904	13.23	16.13	0.75501547814333	59.7467616	98.9348 /T
2019-Mar-03 21:00	05 11 23.30	+34 49 35.3	269.4125	54.2971	13.35	16.24	0.78949832429427	60.0379231	96.9577 /T
2019-Mar-04 21:00	05 07 01.65	+34 44 02.3	270.7509	52.7860	13.46	16.34	0.82412250823840	60.2526768	95.0766 /T
2019-Mar-05 21:00	05 03 05.18	+34 38 29.1	271.9794	51.3491	13.58	16.44	0.85884729015124	60.4011957	93.2804 /T
2019-Mar-06 21:00	04 59 30.98	+34 33 00.7	273.1183	49.9789	13.69	16.53	0.89363722926073	60.4918613	91.5596 /T
2019-Mar-07 21:00	04 56 16.56	+34 27 40.5	274.1831	48.6689	13.80	16.61	0.92846126453399	60.5316283	89.9059 /T
2019-Mar-08 21:00	04 53 19.74	+34 22 31.1	275.1862	47.4134	13.90	16.69	0.96329198169316	60.5263112	88.3124 /T

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*****
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Column meaning:

TIME

Times PRIOR to 1962 are UT1, a mean-solar time closely related to the prior but now-deprecated GMT. Times AFTER 1962 are in UTC, the current civil or "wall-clock" time-scale. UTC is kept within 0.9 seconds of UT1 by introduction of integer leap-seconds for 1972 and later.

Conversion from the internal TDB timescale to the non-uniform UT time-scale requested for output has not been determined for UTC times after the next July or January 1st. Therefore, the last known leap-second is used as a constant over future intervals.



Time tags refer to the UT time on Earth, regardless of where the observer is located in the solar system. For example, if an observation from the surface of another body has an output time-tag of 12:31:00 UT, it refers to a time-scale conversion from TDB to UT valid at the center of the Earth, not the actual observer location elsewhere in the solar system, where clock rates may differ slightly due to the local spacetime metric and there is no precisely defined or adopted "UT" analog. Any 'b' symbol in the 1st-column denotes a B.C. date. First-column blank (" ") denotes an A.D. date. Calendar dates prior to 1582-Oct-15 are in the Julian calendar system. Later calendar dates are in the Gregorian system.

NOTE: "n.a." in output means quantity "not available" at the print-time.

#### SOLAR PRESENCE (OBSERVING SITE)

Time tag is followed by a blank, then a solar-presence symbol:

'\*' Daylight (refracted solar upper-limb on or above apparent horizon)  
'C' Civil twilight/dawn  
'N' Nautical twilight/dawn  
'A' Astronomical twilight/dawn  
' ' Night OR geocentric ephemeris

#### LUNAR PRESENCE (OBSERVING SITE)

The solar-presence symbol is immediately followed by a lunar-presence symbol:

'm' Refracted upper-limb of Moon on or above apparent horizon  
' ' Refracted upper-limb of Moon below apparent horizon OR geocentric ephemeris

R.A.\_(ICRF/J2000.0)\_DEC =

Astrometric right ascension and declination of the TARGET CENTER with respect to the observing site in the coordinates of the ICRF/J2000 inertial reference frame. Compensated for down-leg light-time.

Units: RA in hours-minutes-seconds of time (HH MM SS.ff),  
DEC in angular degrees-minutes-seconds (DD MM SS.f)

Azi\_(a-appr)\_Elev =

Airless apparent azimuth and elevation of target center. Adjusted for light-time, the gravitational deflection of light, stellar aberration, precession and nutation. Azimuth measured North(0) -> East(90) -> South(180) -> West(270) -> North (360). Elevation is with respect to plane perpendicular to local zenith direction. TOPOCENTRIC ONLY.

Units: DEGREES

T-mag N-mag =

Comet's approximate apparent visual total magnitude ("T-mag") and nuclear magnitude ("N-mag") by following standard IAU definitions:

T-mag =  $M1 + 5 \cdot \log_{10}(\delta) + k1 \cdot \log_{10}(r)$

N-mag =  $M2 + 5 \cdot \log_{10}(\delta) + k2 \cdot \log_{10}(r) + \text{phcof} \cdot \beta$

Units: MAGNITUDES

delta deldot =

Range ("delta") and range-rate ("delta-dot") of target center with respect to the observer at the instant light seen by the observer at print-time would have left the target center (print-time minus down-leg light-time); the distance traveled by a light ray emanating from the center of the target and recorded by the observer at print-time. "deldot" is a projection of the velocity vector along this ray, the light-time-corrected line-of-sight from the coordinate center, and indicates relative motion. A positive "deldot" means the target center is moving away from the observer (coordinate center). A negative "deldot" means the target center is moving toward the observer.

Units: AU and KM/S

S-O-T /r =

Sun-Observer-Target angle; target's apparent SOLAR ELONGATION seen from the observer location at print-time. Angular units: DEGREES

The '/r' column indicates the target's apparent position relative to the Sun in the observer's sky, as described below:

For an observing location on the surface of a rotating body

(considering its rotational sense):

/T indicates target TRAILS Sun (evening sky; rises and sets AFTER Sun)

/L indicates target LEADS Sun (morning sky; rises and sets BEFORE Sun)

For an observing point NOT on a rotating body (such as a spacecraft), the "leading" and "trailing" condition is defined by the observer's heliocentric orbital motion: if continuing in the observer's current direction of heliocentric motion would encounter the target's apparent longitude first, followed by the Sun's, the target LEADS the Sun as seen by the observer. If the Sun's apparent longitude would be encountered first, followed by the target's, the target TRAILS the Sun.

NOTE: The S-O-T solar elongation angle is numerically the minimum separation angle of the Sun and target in the sky in any direction. It does NOT indicate the amount of separation in the leading or trailing directions, which are defined in the equator of a spherical coordinate system.

Computations by ...

Solar System Dynamics Group, Horizons On-Line Ephemeris System  
4800 Oak Grove Drive, Jet Propulsion Laboratory - Pasadena, CA 91109 USA

Information: <http://ssd.jpl.nasa.gov/>

Connect : telnet://ssd.jpl.nasa.gov:6775 (via browser)

telnet ssd.jpl.nasa.gov 6775 (via command-line)

Author : Jon.D.Giorgini@jpl.nasa.gov

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