




# Solar System Dynamics

## JPL Small-Body Database Browser

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### 18021 Waldman (1999 JH127)

**Classification:** Main-belt Asteroid **SPK-ID:** 2018021

[\[ Ephemeris \]](#) | [\[ Orbit Diagram \]](#) | [\[ Orbital Elements \]](#) | [\[ Physical Parameters \]](#) | [\[ Discovery Circumstances \]](#) | [\[ Close-Approach Data \]](#)

[\[ show orbit diagram \]](#)

#### Orbital Elements at Epoch 2457000.5 (2014-Dec-09.0) TDB

Reference: [JPL 12](#) (heliocentric ecliptic J2000)

Element	Value	Uncertainty (1-sigma)	Units
e	.1050149267840992	6.4448e-08	
a	2.745428209897342	2.3307e-08	AU
q	2.457117267443972	1.7287e-07	AU
i	4.108655399494861	5.6284e-06	deg
node	117.6977636225686	9.3945e-05	deg
peri	230.5600149654086	9.9339e-05	deg
M	58.98874960155077	3.1818e-05	deg
$t_p$	2456728.242247991943 (2014-Mar-11.74224799)	0.00014698	JED
period	1661.550573371091	2.1158e-05	d
	4.55	5.793e-08	yr
n	.2166650872802519	2.759e-09	deg/d
Q	3.033739152350711	2.5755e-08	AU

#### Orbit Determination Parameters

# obs. used (total)	898
data-arc span	16037 days (43.91 yr)
first obs. used	1971-03-26
last obs. used	2015-02-20
planetary ephem.	DE431
SB-perf. ephem.	SB431-BIG16
condition code	0
fit RMS	.51289
data source	ORB
producer	Otto Matic
solution date	2015-Apr-07 16:59:51

#### Additional Information

Earth MOID = 1.45307 AU

$T_{jup}$  = 3.336

[\[ show covariance matrix \]](#)

[\[ Ephemeris \]](#) | [\[ Orbit Diagram \]](#) | [\[ Orbital Elements \]](#) | [\[ Physical Parameters \]](#) | [\[ Discovery Circumstances \]](#) | [\[ Close-Approach Data \]](#)

#### Physical Parameter Table

Parameter	Symbol	Value	Units	Sigma	Reference	Notes
absolute magnitude	H	14.4	mag	n/a	MPO332986	

#### 18021 Waldman

Discovered 1999 May 13 by the Lincoln Laboratory Near-Earth Asteroid Research Team at Socorro.

Sarah Elyse Waldman (b. 1985) was awarded second place in the 2003 Intel International Science and Engineering Fair for her behavioral and social sciences project. She attends the Roslyn High School, Roslyn Heights, New York, U.S.A.

NOTE: some special characters may not display properly (any characters within {} are an attempt to place the proper accent above a character)

Reference: 20040614/MPCPages.arc

Last Updated: 2009-12-11

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#### Alternate Designations

1999 JH127 = 1998 FH128 = 4197 T-1

[\[ Ephemeris \]](#) | [\[ Orbit Diagram \]](#) | [\[ Orbital Elements \]](#) | [\[ Physical Parameters \]](#) | [\[ Discovery Circumstances \]](#) | [\[ Close-Approach Data \]](#)

