Close Encounter: 2017 MZ8

Bosscha Observatory | Astronomy Research Division, ITB

This information is generated on 2017-09-07 16:47 UTC.

Basic Properties

Name: 2017 MZ8

■ Estimated diameter: 99. – 222 meters

Classification: Apollo (NEO)

• H: 22.136

Period: 1440.09 days

Table: Orbital elements at epoch 2457927.5 JD

Eccentricity (e) .649219 Inclination (i) 4.61189 Lon. of ascending node (Ω) 17.0609 Argument of pericenter (ω) 345.429	Parameter	Value
Inclination (i) 4.6118 Lon. of ascending node (Ω) 17.060 Argument of pericenter (ω) 345.42	Semi-major axis (a)	2.49572
Lon. of ascending node (Ω) 17.060 Argument of pericenter (ω) 345.42	Eccentricity (e)	.649219
Argument of pericenter (ω) 345.42	Inclination (i)	4.61183
	Lon. of ascending node (Ω)	17.0602
Mean Anomaly (M) 343.00	Argument of pericenter (ω)	345.426
1 1 1 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	Mean Anomaly (M)	343.002

Orbit

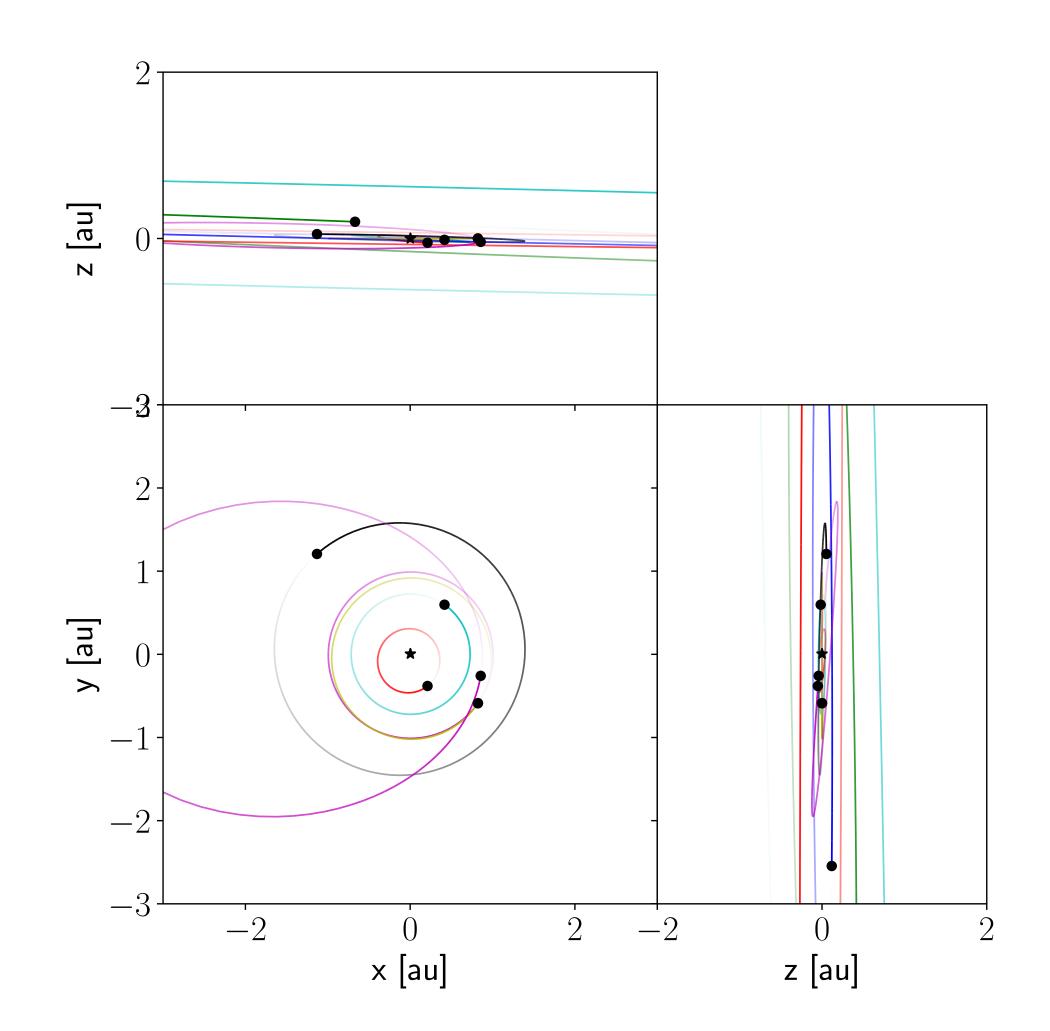


Figure: Orbit of the asteroid and the planets. This plot only shows the inner region of the Solar System.

Acknowledgements

Our script retrieve basic informations and initial condition from JPL NASA, re-integrate the Solar System using Rebound package, and write this report using LATEX.

Distance to the Earth and Orbital Elements

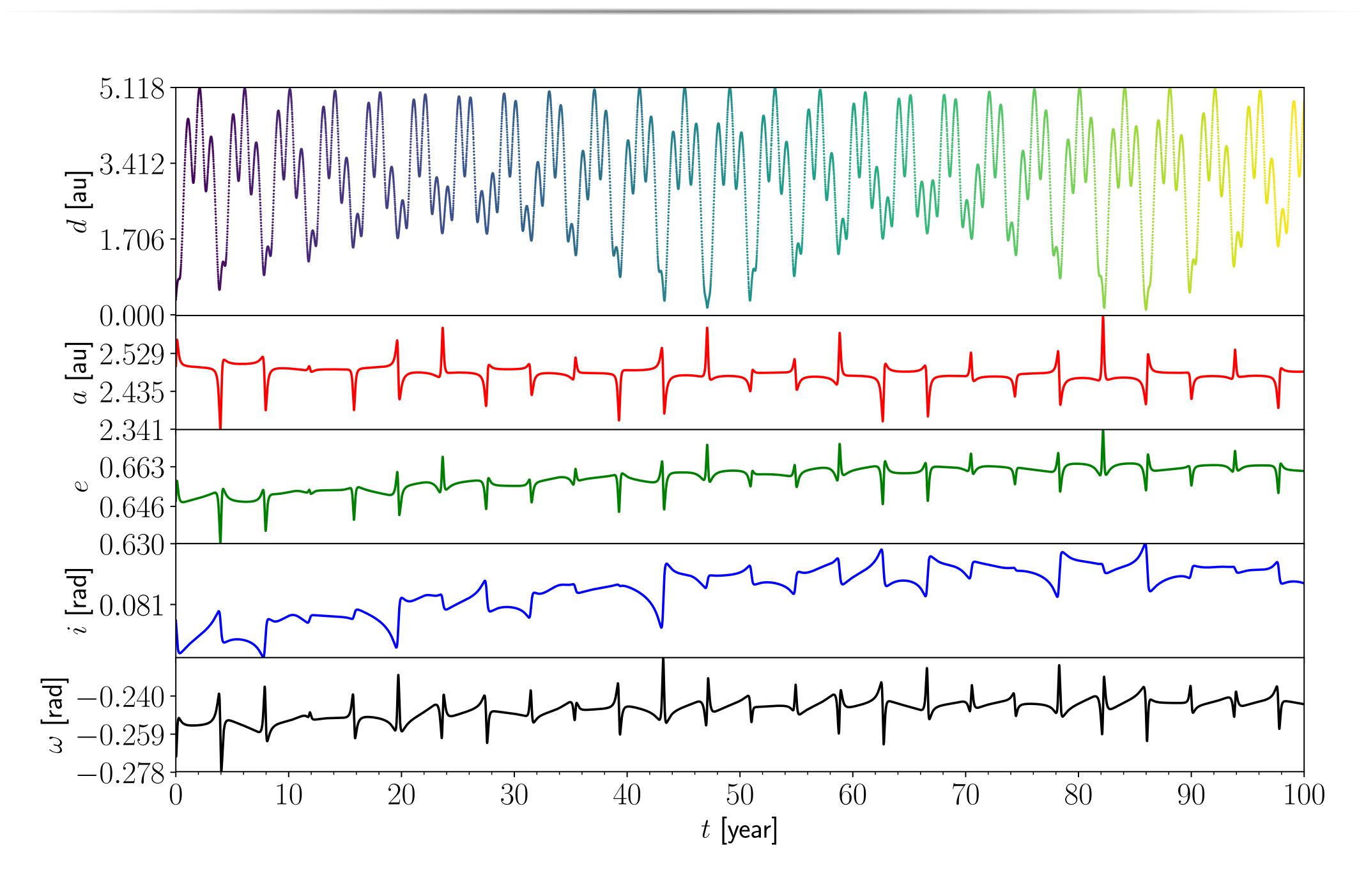


Figure: Distance to the Earth and orbital elements of the asteroid for the next 100 years. Starting time of the integration is 2017-08-17 00:00 UTC.

Geocentric

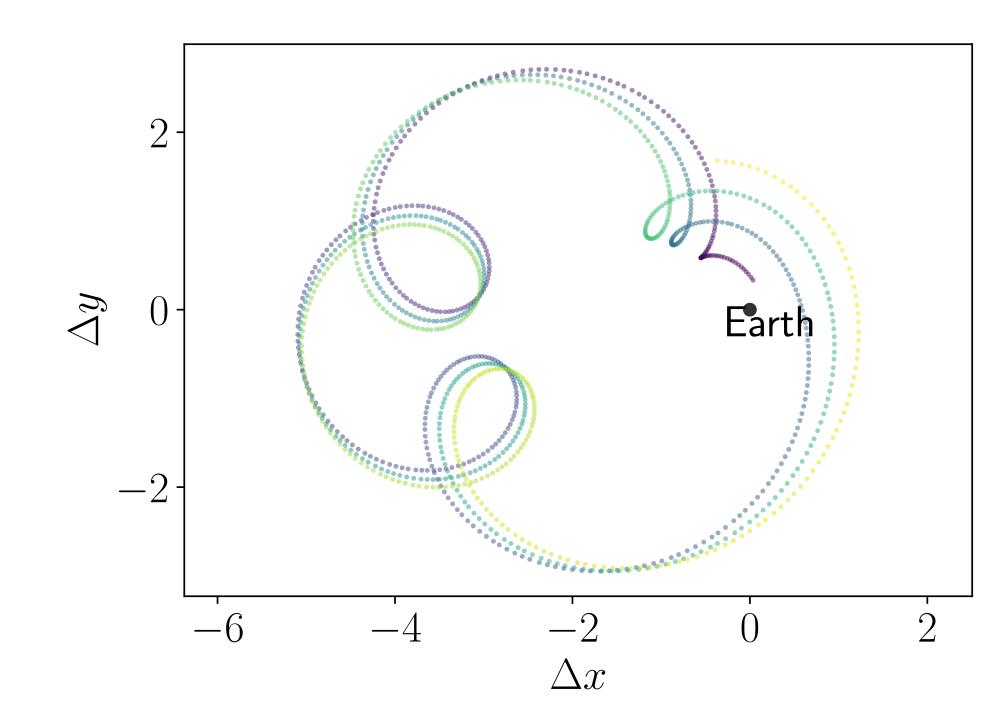


Figure: Movement of the asteroid relative to the Earth (xy-plane; only the first 12 years of integration).

Rotating Frame

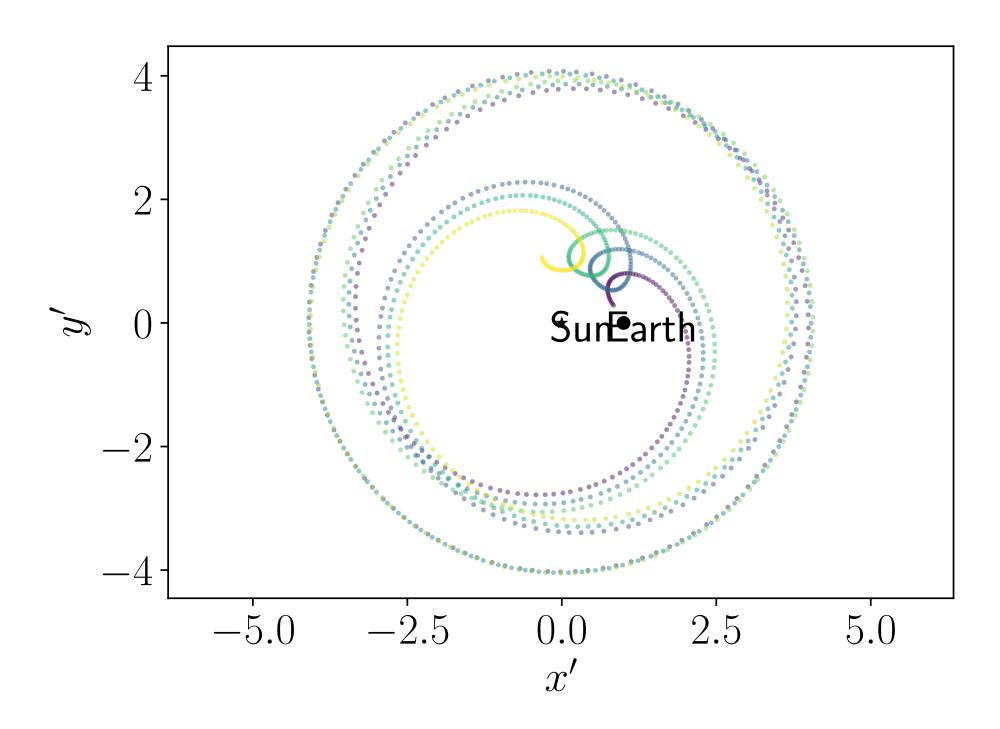


Figure: Movement of the asteroid relative to the Sun-Earth system (xy-plane; only the first 12 years of integration).

Nearest close encounter

- Time: 1 September 2017, 12.05 UT
- Distance: 7.066×10^6 km (18.38 Lunar Distance)
- Relative velocity:

List of close encounter

Time Body d (au) v_{rel} (km/s)