Close Encounter: 456938 (2007 YV56)

Bosscha Observatory | Astronomy Research Division, ITB This information is generated on 2017-09-07 17:28 UTC.

Basic Properties

- Name: 456938 (2007 YV56)
- Discovered 2007-Dec-31 by CSS at Catalina
- Estimated diameter: 167 375 meters
- Classification: Apollo (NEO, PHA)
- H: 21.0
- Period: 722.345 days

Table: Orbital elements at epoch 2458000.5 JD

Parameter	Value
Semi-major axis (a)	1.57554
Eccentricity (e)	.622205
Inclination (i)	6.24408
Lon. of ascending node (Ω)	102.423
Argument of pericenter (ω)	265.730
Mean Anomaly (M)	348.294

Orbit

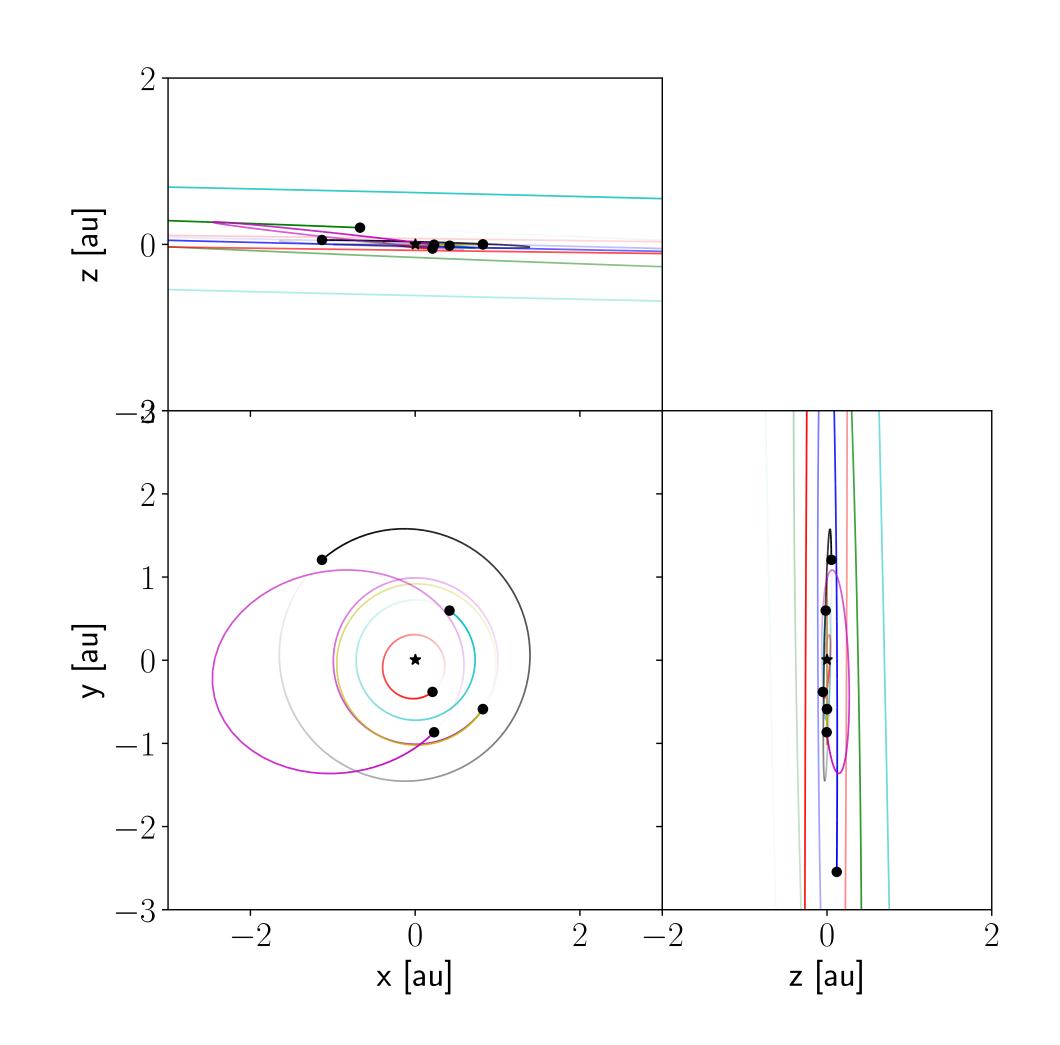


Figure: Orbit of the asteroid and the planets. This plot only shows the inner region of the Solar System.

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

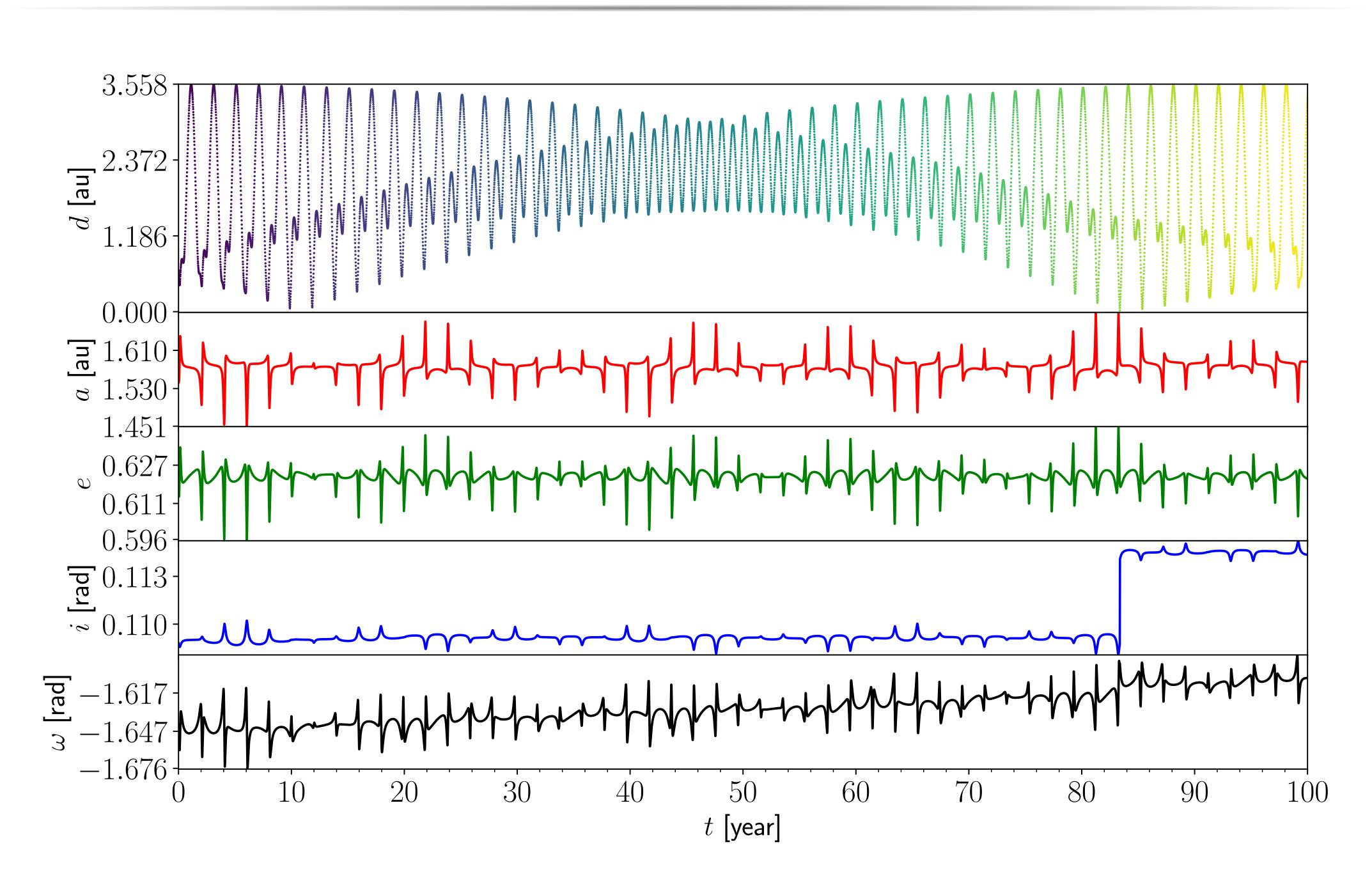


Figure: Distance to the Earth and orbital elements of the asteroid for the next 100 years. Starting time of the integration is 2017-08-17 00:00 UTC.

Geocentric

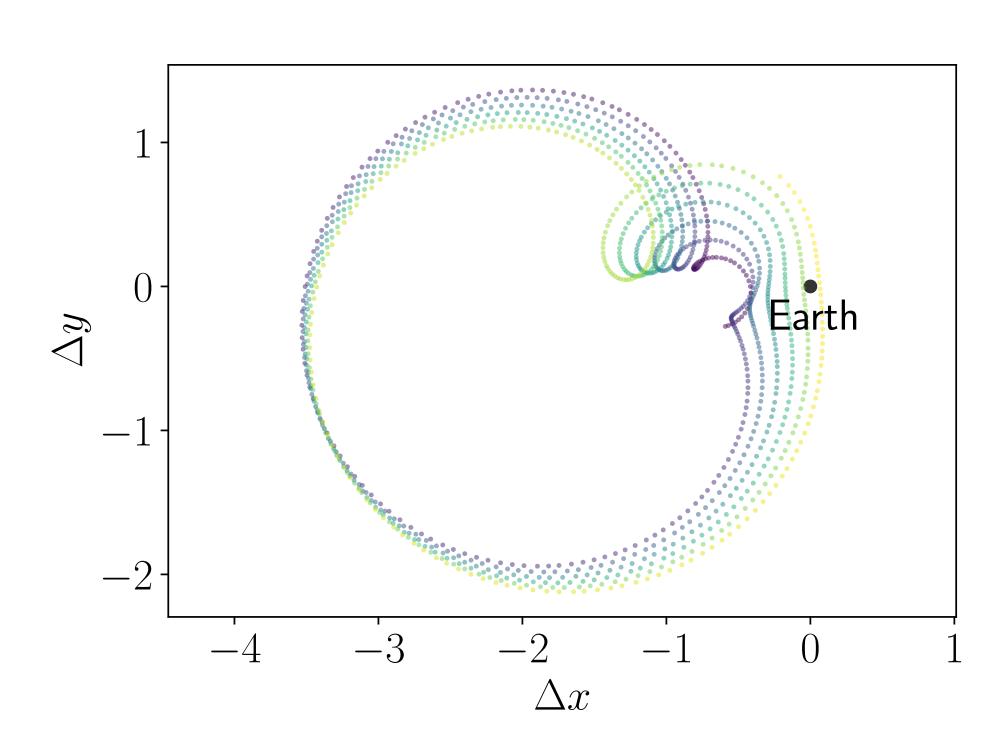


Figure: Movement of the asteroid relative to the Earth (xy-plane; only the first 12 years of integration).

Rotating Frame

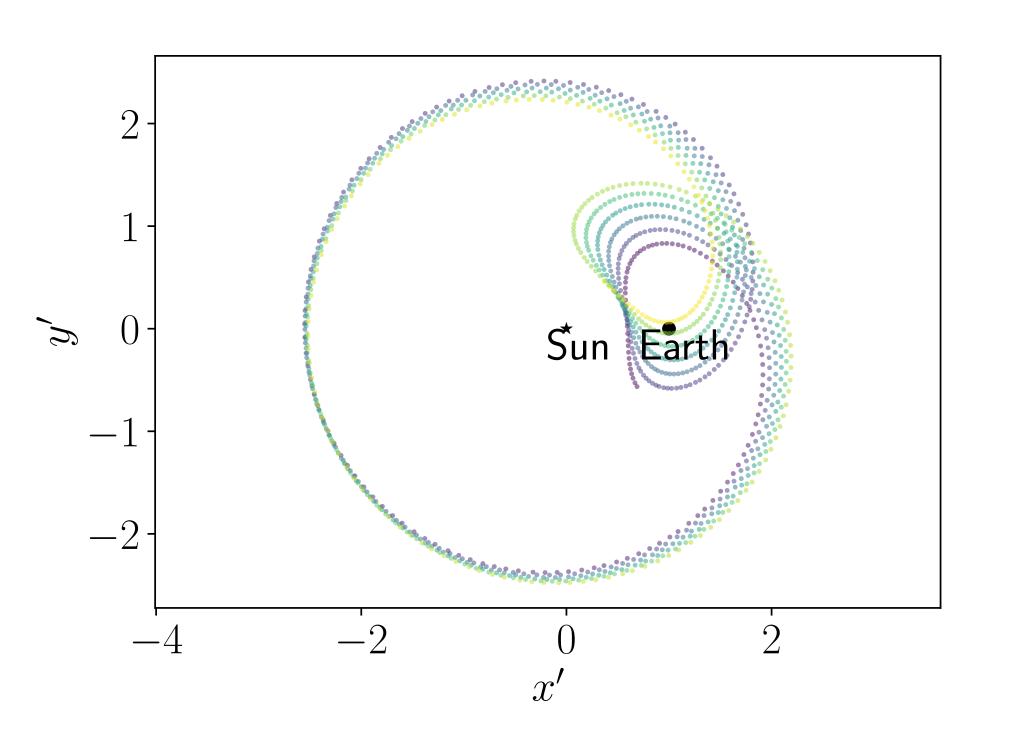


Figure: Movement of the asteroid relative to the Sun-Earth system (xy-plane; only the first 12 years of integration).

Nearest close encounter

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

Time

List of close encounter

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

2017-09-24 Earth 0.4142 19.34 2019-09-08 Earth 0.3987 18.23 2021-08-20 Earth 0.3611 15.93 2023-07-29 Earth 0.2888 12.91 2023-08-13 Venus 0.0596 14.47 2025-07-07 Earth 0.1735 14.20 2027-06-28 Earth 0.0503 17.78 2029-06-22 Earth 0.0660 20.99 2031-06-16 Earth 0.1904 24.66 2033-06-09 Earth 0.3140 28.31 2033-06-09 Earth 0.4327 31.90 2041-06-02 Venus 0.0389 16.86 2035-06-04 Earth 0.4327 31.90 2047-10-03 Mars 0.0675 13.71 2051-05-26 Venus 0.1328 14.19 2069-02-23 Venus 0.0470 18.32 2085-05-16 Mars 0.0773 13.91 2075-01-12 Earth <th></th> <th>Doay</th> <th>α (αα)</th> <th></th>		Doay	α (αα)	
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