Resource: Masses

Compilation of estimates of the mass of asteroids.

For each measurement of the mass (`mass` ± (`err_mass_up`, `err_mass_low`) in kg) the SSO identification, and method are listed.

Description of columns

Column	Type	Description
`num`	int	Asteroid IAU Number if available
`name`	str	Asteroid name or designation
`mass`	float	Mass estimate (kg)
`err_mass_up`	float	Upper uncertainty on the mass (kg)
`err_mass_low`	float	Lower uncertainty on the mass (kg)
`method`	str	Method used to determine the diameter
`selection`	int	Flag for selection (black list, neutral, forced: -1/0/1)
`bibref`	str	Bibcode to identify the dataset in `source.ods`

Methods

The column `method` only accept a limited number of valid entries, indicating how the mass was determined:

- The Rolls Royce
  - `SPACE` : based on a close-encounter by a space mission
- Case of binary systems

  - `Bin-PheMu` : mutual event (occultation and eclipses)
  - `Bin-Im` : direct imaging
  - `Bin-Radar` : radar echoes on a close-encounter by a space mission
  - `Bin-xitau` : direct imaging with `xitau` algorithm
  - `Bin-Genoid` : direct imaging with `genoid` algorithm

- Astrometry

  - `DEFLECT` : deflection during a close-encounter
  - `EPHEM` : global ephemerides theory
  - `Yarkovsky` : from the Yarkovsky secular acceleration

- For comets only

  - `Comet-NGF` : from the acceleration by non-gravitational forces
  - `Comet-Break` : from the break-up of the nucleus