

Possibility of meteoroids from Ceres

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Dynamical paths of Lunar and Martian meteorites to Earth are well known. Spacecraft Dawn revealed heavily cratered surface of dwarf planet Ceres punctuated by "bright spots" considered as a deposit of carbonates and other salts. This indicates the possibility of particles released from the surface at a rate that exceeds the escape velocity needed to overcome the gravitational force of Ceres.

In the work, dynamical nature of the motion of test particles potentially released from Ceres and distributed along its orbit is investigated. First, the Fast Lyapunov indicator (FLI) maps of 8:3 MMR resonance with Jupiter in orbital plane of Ceres are created and then the dynamical paths of test particles are searched for as they reach Earth's orbit.

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