

Elisa Maria Alessi

Italian National Research Council

Resonant dynamics in the LEO region

The growing awareness of the space debris problem has motivated the scientific community to look for effective and feasible active and passive end-of-life disposal solutions for spacecraft orbiting the Earth, in particular the Low Earth Orbit region (LEO). To this end, it is mandatory to achieve a deep understanding of the dynamics pervading the circumterrestrial space. The talk will address the recent advancements obtained in the framework of the ReDSHIFT H2020 project concerning the dynamical mapping of the LEO region, by means of extensive numerical simulations and analytical studies of the resonances due to solar radiation pressure and third-body perturbations.