Solar system science with extreme astrometry

Benoît Carry*[1]

[1]Joseph Louis LAGRANGE (LAGRANGE) – CNRS : UMR7293, Université Nice Sophia Antipolis [UNS], Observatoire de la Cote d'Azur, Université Nice Sophia Antipolis (UNS) – Boulevard de l'Observatoire B.P. 4229 06304 Nice Cedex 04 - France, France

Abstract

Among all sources in the sky, objects from our own Solar system are characterized by their ever changing positions.
Regular and precise astrometry is key to study their orbits, which distribution results from both the early events
of planetary formation and the secular evolution of 4.5 Gy.
The ESA space mission has brought a revolution with its unprecedented astrometric accuracy and repeated observations
of small bodies from our Solar system: the asteroids, comets, and satellites.
I will describe some key questions related to the astrometry and dynamics of small bodies, and discuss the prospective
for a future space mission.

*Speaker