

# Characterisation of the outer Solar System and the Oort cloud

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The dynamics of small Solar System bodies well beyond Neptune has the particularity that — being at the interface of the heliosphere and the interstellar medium — it involves gravitational effects coming from both the Solar System and from the Galactic environment in which it evolves.

Our goal is to understand how such interactions are crucial in shaping the outer Solar system, up to the Oort cloud, over different timescales. These objects being physically and dynamically pristine, it will allow us to build a coherent picture of the history of our Solar System, its formation, and its evolution. While the Gaia mission is characterising the Galactic environment, the LSST survey will provide insight on the dynamics of these distant objects, including long period comets, extreme trans-Neptunain objects, and inter-stellar objects.

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