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THE CONTRIBUTION OF THE BARCELONA'S DYNAMICAL SYSTEMS GROUP TO HALO  
ORBITS**Abstract**

In this paper we will summarize the contribution during the last 35 years of the Barcelona's Dynamical Systems group to the study of libration point orbits (LPO), including halo orbits. The results obtained by the group, have been used from old (but still alive) missions such as SOHO to very recent ones such as Artemis. The items that will be reviewed include the analytical computation, up to high orders, of LPOs, the use of invariant manifolds to several kinds of transfer orbits to and between LPOs, the geometrical approach of their station keeping, the semi-analytical and numerical description of the phase space around the collinear libration points, and the extension of most of the results obtained in simplified models of motion to more realistic ones.