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Libration points of a rotating complexified triangle. (English. Russian original) Zbl 1365.70013

Mosc. Univ. Mech. Bull. 71, No. 3, 51-57 (2016); translation from Vestn. Mosk. Univ., Ser. I 71, No. 3, 25-31 (2016).

Summary: Similarities and differences between the force fields of a classical real dipole and a complex dipole are analyzed. The complex dipole is a pair of points equipped with complex conjugate masses and situated in a complex domain. The results of this analysis are used in the problem of motion of a material point in the field of attraction of a triangle uniformly rotating in its plane about its center of mass. It is assumed that a complex dipole is assigned to each vertex of the triangle. The existence and stability of libration points are studied. In particular, it is shown that there exist libration points outside the plane of the triangle.

MSC:

70F15 Celestial mechanics

Full Text: DOI

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