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Altri autori (Persone)	GomezG (Gerard)
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Nota di contenuto	Contents; Preface; Chapter 1 Bibliographical Survey; 1.1 Equations. The Triangular Equilibrium Points and their Stability; 1.2 Numerical Results for the Motion Around L4 and L5 ; 1.3 Analytical Results for the Motion Around L4 and L5; 1.3.1 The Models Used 1.4 Miscellaneous Results 1.4.1 Station Keeping at the Triangular Equilibrium Points; 1.4.2 Some Other Results; Chapter 2 Periodic Orbits of the Bicircular Problem and Their Stability; 2.1 Introduction; 2.2 The Equations of the Bicircular Problem 2.3 Periodic Orbits with the Period of the Sun 2.4 The Tools: Numerical Continuation of Periodic Orbits and Analysis of Bifurcations; 2.4.1 Numerical Continuation of Periodic Orbits for Nonautonomous and Autonomous Equations 2.4.2 Bifurcations of Periodic Orbits: From the Autonomous to the Nonautonomous Periodic System 2.4.3 Bifurcation for Eigenvalues Equal to One; 2.5 The Periodic Orbits Obtained by Triplication Chapter 3 Numerical Simulations of the Motion in an Extended Neighborhood of the Triangular Libration Points in the Earth-Moon

System 3.1 Introduction; 3.2 Simulations of Motion Starting at the Instantaneous Triangular Points at a Given Epoch

3.3 Simulations of Motion Starting Near the Planar Periodic Orbit of Kolenkiewicz and Carpenter

Sommario/riassunto

It is well known that the restricted three-body problem has triangular equilibrium points. These points are linearly stable for values of the mass parameter, μ , below Routh's critical value, μ_1 . It is also known that in the spatial case they are nonlinearly stable, not for all the initial conditions in a neighborhood of the equilibrium points μ_4, μ_5 but for a set of relatively large measures. This follows from the celebrated Kolmogorov-Arnold-Moser theorem. In fact there are neighborhoods of computable size for which one obtains "practical stability" in the sense that