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Titolo	Generating Families in the Restricted Three-Body Problem : II. Quantitative Study of Bifurcations // by Michel Henon
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Soggetti	Observations, Astronomical Astronomy—Observations Statistical physics Dynamical systems Computer mathematics Space sciences Astronomy, Observations and Techniques Complex Systems Computational Mathematics and Numerical Analysis Space Sciences (including Extraterrestrial Physics, Space Exploration and Astronautics) Statistical Physics and Dynamical Systems
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Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Definitions and General Equations -- Quantitative Study of Type 1 -- Partial Bifurcation of Type 1 -- Total Bifurcation of Type 1 -- The Newton Approach -- Proving General Results -- Quantitative Study of Type 2 -- The Case $1/3 < \nu < 1/2$ -- Partial Transition 2.1 -- Total Transition 2.1 -- Partial Transition 2.2 -- Total Transition 2.2 -- Bifurcations 2T1 and 2P1.
Sommario/riassunto	The classical restricted three-body problem is of fundamental importance because of its applications in astronomy and space navigation, and also as a simple model of a non-integrable Hamiltonian dynamical system. A central role is played by periodic orbits, of which many have been computed numerically. This is the second volume of

an attempt to explain and organize the material through a systematic study of generating families, the limits of families of periodic orbits when the mass ratio of the two main bodies becomes vanishingly small. We use quantitative analysis in the vicinity of bifurcations of types 1 and 2. In most cases the junctions between branches can now be determined. A first-order approximation of families of periodic orbits in the vicinity of a bifurcation is also obtained. This book is intended for scientists and students interested in the restricted problem, in its applications to astronomy and space research, and in the theory of dynamical systems.

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