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Nota di contenuto	Introduction SSSB Model and equations of motion Stability of equilibrium points and the local behavior of orbits Topology and stability of large-scale periodic orbits Resonant orbit near the equatorial plane Free motion of a particle close to the surface of SSSBs Conclusions and future directions.
Sommario/riassunto	This prizewinning PhD thesis presents a general discussion of the orbital motion close to solar system small bodies (SSSBs), which induce

non-central asymmetric gravitational fields in their neighborhoods. It introduces the methods of qualitative theory in nonlinear dynamics to the study of local/global behaviors around SSSBs. Detailed mechanical models are employed throughout this dissertation, and specific numeric techniques are developed to compensate for the difficulties of directly analyzing. Applying this method, several target systems, like asteroid 216 Kleopatra, are explored in great detail, and the results prove to be both revealing and pervasive for a large group of SSSBs.