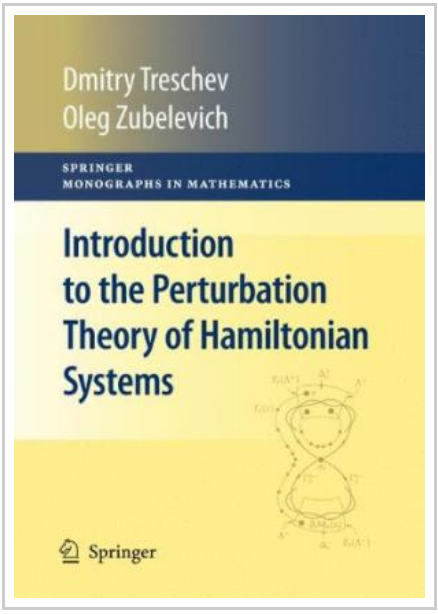

Introduction to the Perturbation Theory of Hamiltonian Systems

By Dmitry Treschev

Springer-Verlag Gmbh Okt 2009, 2009. Buch. Book Condition: Neu. 235x155x22 mm. Neuware - This book is an extended version of lectures given by the rst author in 1995-1996 at the Department of Mechanics and Mathematics of Moscow State University. We believe that a major part of the book can be regarded as an additional material to the standard course of Hamiltonian mechanics. In comparison with the original Russian 1 version we have included new material, simpli ed some proofs and corrected m- prints. Hamiltonian equations rst appeared in connection with problems of geometric optics and celestial mechanics. Later it became clear that these equations describe a large classof systemsin classical mechanics,physics,chemistry,and otherdomains. Hamiltonian systems and their discrete analogs play a basic role in such problems as rigid body dynamics, geodesics on Riemann surfaces, quasi-classic approximation in quantum mechanics, cosmological models, dynamics of particles in an accel- ator, billiards and other systems with elastic re ections, many in nite-dimensional models in mathematical physics, etc. In this book we study Hamiltonian systems assuming that they depend on some parameter (usually), where for = 0 the dynamics is in a sense simple (as a rule, integrable). Frequently such a parameter appears naturally....

Reviews

Extensive information for book fans. It is writter in basic words and never hard to understand. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- ***Otis Wisoky***

This publication is great. It is full of wisdom and knowledge You will not really feel monotony at at any time of the time (that's what catalogs are for relating to when you ask me).

-- ***Dr. Everett Dicki DDS***