Título: Contemporary Accelerator Physics

Autor: Tzenov, Stephan

Precio: $836.00

Editorial:

Año: 2004

Tema:

Edición: 1ª

Sinopsis

ISBN: 9789812389008

This book adopts a non-traditional approach to accelerator theory. The exposition starts with the synchro-betatron formalism and continues with the linear and nonlinear theories of transverse betatron motion. Various methods of studying nonlinear dynamical systems (the canonical theory of perturbations and the methods of multiple scales and formal series) are explained through examples. The renormalization group approach to studying nonlinear (continuous and discrete) dynamical systems as applied to accelerators and storage rings is used throughout the book. The statistical description of charged particle beams (the Balescu-Lenard and Landau kinetic equations as well as the Vlasov equation) is dealt with in the second part of the book. The processes of pattern formation and formation of coherent structures (solitons) are also described.