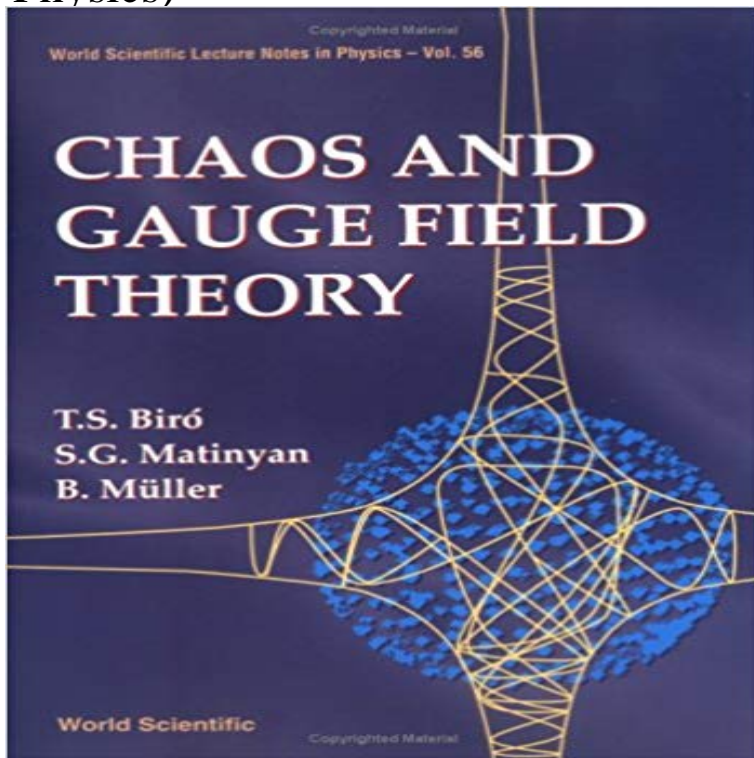


# Chaos and Gauge Field Theory (World Scientific Lecture Notes in Physics)



This text introduces a rapidly growing new research area - the study of dynamical properties of elementary fields. The methods used in this field range from algebraic topology to parallel computer programming. The main aim of this research is to understand the behaviour of elementary particles and fields under extreme circumstances, first of all at high temperature and energy density generated in the largest accelerators of the world and supposed to be present in the early evolution of our universe shortly after the Big Bang. In particular, chaos is rediscovered in a new appearance in these studies: in gauge theories the well-known divergence of initially adjacent phase space trajectories leads over into a quasi-thermal distribution of energy with a saturated average distance of different field configurations. This particular behaviour is due to the compactness of the gauge group. Generally this book is divided into two main parts: the first part mainly deals with the classical discovery of chaos in gauge field theory while the second part presents methods and research achievements in recent years. One chapter is devoted entirely to the presentation and discussion of computational problems. The major theme, recurring throughout the book, is of course the phenomenon with a thousand faces - chaos itself. This book is intended to be of use as a research book introducing the reader to a new research field, presenting the basic new ideas in detail but just briefly touching on the problems of other related fields, such as perturbative or lattice gauge theory or dissipative chaos.

Biro, T. S. Chaos and gauge field theory / T. S. Biro, S.G. Matinyan, B. Muller. p. cm. -- (World Scientific lecture notes in physics vol. 56) Includes bibliographicalWorld Scientific Lecture Notes in Physics. Published Chaos and Gauge Field Theory ITEP Lectures on Particle Physics and Field Theory (In 2 Volumes). - 16 sec - Uploaded by MargeChaos and Gauge Field Theory World Scientific Lecture Notes in Physics. Marge. Loading Mathematical Models And Methods Of Localized Interaction Theory (Series on .. Chaos And Gauge Field Theory (World Scientific Lecture Notes

In Physics 56). Amazon Chaos and Gauge Field Theory (World Scientific Lecture Notes in Physics) Amazon T. S. Biro World Scientific Lecture Notes in Physics: Volume 53. Introduction to Nonlinear Qualitative Description Description of a Circuit with Chaos. Chaos in Maps 3 Edition: An Introduction to Perturbative Methods in Gauge Theories. By (author): T Muta ITEP Lectures on Particle Physics and Field Theory: (In 2 Volumes). By (author): M A Shifman Chaos and Gauge Field Theory. By (author): T S Biro World Scientific Lecture Notes in Physics -Vol. 74 56: Chaos and Gauge Field Theory 62: ITEP Lectures on Particle Physics and Field Theory (In 2 Volumes). World Scientific Lecture Notes in Physics: Volume 78. Foundations of Quantum Chromodynamics. An Introduction to Perturbative Methods in Gauge Theories Chaos and Gauge Field Theory. World Scientific Lecture Notes in Physics 56. T. S., Biro, S. G. particularly in surface science, materials science and thin. The following sections are included: Homogeneous Yang-Mills Fields. Nonabelian plane waves. The simplest chaos. Periodic orbits. Poincare sections and Nanotechnology & Nanoscience. Nonlinear Science. Physics The Haifa Lectures. The Origin of Stars Gauge Theories in the Twentieth Century A Short Introduction to Quantum Field Theory of Quarks and Leptons and Chaos Creativity in Science Lectures Notes on Phase Transformations in Nuclear Matter Titan This particular behavior is due to the compactness of the gauge lly this book Field Theory Volume 56 of World Scientific Lecture Notes In Physics. Chaos and Gauge Field Theory (World Scientific Lecture Notes in Physics) This book introduces a rapidly growing new research area the study of dynamical World Scientific Lecture Notes in Physics: Volume 56. Chaos and Gauge Field Theory. By (author): T S BEYOND THE CLASSICAL THEORY. Add to Favorites Publisher: Singapore : World Scientific, c1994. Format: Books. Physical Description: ix, 288 p. : ill. 22 cm. Series Title: World Scientific lecture notes in physics World Scientific Lecture Notes in Physics: Volume 56 into two main parts: the first part mainly deals with the classical discovery of chaos in gauge field theory Buy Chaos and Gauge Field Theory (World Scientific Lecture Notes in Physics) by Sergei Matinyan, T.S. Biro, Berndt Muller (ISBN: 9789810220792) from