Smooth Ergodic Theory and Its Applications

By AMS Summer Research Institute on Smooth Ergodic Theory and Its Applications (1999 : University of Washington); Anatole B. Katok; Editor-Anatole B. Katok; Editor-Rafael Le LA Llave; Editor-Yakov Pesin; Editor-Howard Weiss

American Mathematical Society, 2001. Hardcover. Book Condition: New. Brand new. We distribute directly for the publisher. During the past decade, there have been several major new developments in smooth ergodic theory, which have attracted substantial interest to the field from mathematicians as well as scientists using dynamics in their work. In spite of the impressive literature, it has been extremely difficult for a student--or even an established mathematician who is not an expert in the area--to acquire a working knowledge of smooth ergodic theory and to learn how to use its tools.Accordingly, the AMS Summer Research Institute on Smooth Ergodic Theory and Its Applications (Seattle, WA) had a strong educational component, including ten mini-courses on various aspects of the topic that were presented by leading experts in the field. This volume presents the proceedings of that conference.Smooth ergodic theory studies the statistical properties of differentiable dynamical systems, whose origin traces back to the seminal works of Poincaré and later, many great mathematicians who made contributions to the development of the theory. The main topic of this volume, smooth ergodic theory, especially the theory of nonuniformly hyperbolic systems, provides the principle paradigm for the rigorous study of complicated or chaotic behavior...

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