# 第一图书网, tushu007.com

## <<数学物理中的整体分析>>

### 图书基本信息

书名: <<数学物理中的整体分析>>

13位ISBN编号: 9787506259484

10位ISBN编号:7506259486

出版时间:2003-6

出版时间:世界图书出版公司

作者:Y.Gliklikh

页数:213

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

## 第一图书网,tushu007.com

## <<数学物理中的整体分析>>

### 内容概要

The first edition of this book entitled Analysis on Riemannian Manifolds and Some Problems of Mathematical Physics was published by Voronezh University Press in 1989. For its English edition, the book has been substantially revised and expanded. In particular, new material has been added to Sections 19 and 20. I am grateful to Viktor L. Ginzburg for his hard work on the translation and for writing Appendix F, and to Tomasz Zastawniak for his numerous suggestions. My special thanks go to the referee for his valuable remarks on the theory of stochastic processes. Finally, I would like to acknowledge the support of the AMS fSU Aid Fund and the International Science Foundation (Grant NZB000), which made possible my work on some of the new results included in the English edition of the book.

### 第一图书网, tushu007.com

## <<数学物理中的整体分析>>

### 书籍目录

Preface to the English Edition Preface to the Russian Edition Part I. Finite-Dimensional Differential Geometry and Mechanics Chapter 1 Some Geometric Constructions in Calculus on Manifolds 1. Complete Riemannian Metrics and the Completeness of Vector Fields 2. Riemannian Manifolds 3. Integral Operators with Parallel Translation Chapter 2 Geometric Formalism of Newtonian Mechanics 4. Geometric Mechanics: Introduction and Review of Standard Examples 5. Geometric Mechanics with Linear Constraints 6. Mechanical Systems with Discontinuous Forces cand Systems with Control Differential Inclusions 7. Integral Equations of Geometric Mechanics: The Velocity Hodograph 8. Mechanical Interpretation of Parallel Translation and Systems with Delayed Control ForceChapter 3 Accessible Points of Mechanical Systems 9. Examples of Points that Cannot Be Connected by a Trajectory 10. The Main Result on Accessible Points 11. Generalizations to Systems with ConstraintsPart II. Stochastic Differential Geometry and its Applications to Physics Chapter 4 Stochastic Differential Equations on Riemannian Manifolds 12. Review of the Theory of Stochastic Equations and Integrals on Finite-Dimensional Linear Spaces 13. Stochastic Differential Equations on Manifolds 14. Stochastic Parallel Translation and the Integral Formalism for the It5 Equations 15. Wiener Processes on Riemannian Manifolds and Related Stochastic Differential Equations 16. Stochastic Differential Equations with Constraints Chapter 5 The Langevin Equation 17. The Langevin Equation of Geometric Mechanics 18. Strong Solutions of the Langevin Equation, Ornstein-Uhlenbeck ProcessesChapter 6 Mean Derivatives, Nelson's Stochastic Mechanics, and Quantization 19. More on Stochastic Equations and Stochastic Mechanics in IRn 20. Mean Derivatives and Stochastic Mechanics on Riemannian Manifolds 21, Relativistic Stochastic MechanicsPart III. Infinite-Dimensional Differential Geometry and Hydrodynamics Chapter 7 Geometry of Manifolds of Diffeomorphisms 22. Manifolds of Mappings and Groups of Diffeomorphisms 23. Weak Riemannian Metrics and Connections on Manifolds of Diffeomorphisms 24. Lagrangian Formalism of Hydrodynamics of an Ideal Barotropic Fluid Chapter 8 Lagrangian Formalism of Hydrodynamics of an Ideal Incompressible Fluid 25. Geometry of the Manifold of Volume-Preserving Diffeomorphisms and LHSs of an Ideal Incompressible Fluid 26. The Flow of an Ideal Incompressible Fluid on a Manifold with Boundary as an LHS with an Infinite-Dimensional Constraint on the Group of Diffeomorphisms of a Closed Manifold 27. The Regularity Theorem and a Review of Results on the Existen e of Solutions Chapter 9 Hydrodynamics of a Viscous Incompressible Fluid and Stochastic Differential Geometry of Groups of Diffeomorphisms 28. Stochastic Differential Geometry on the Groups of Diffeomorphisms of the n-Dimensional Torus 29. A Viscous Incompressible FluidReferencesIndex

# 第一图书网, tushu007.com

# <<数学物理中的整体分析>>

### 版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com