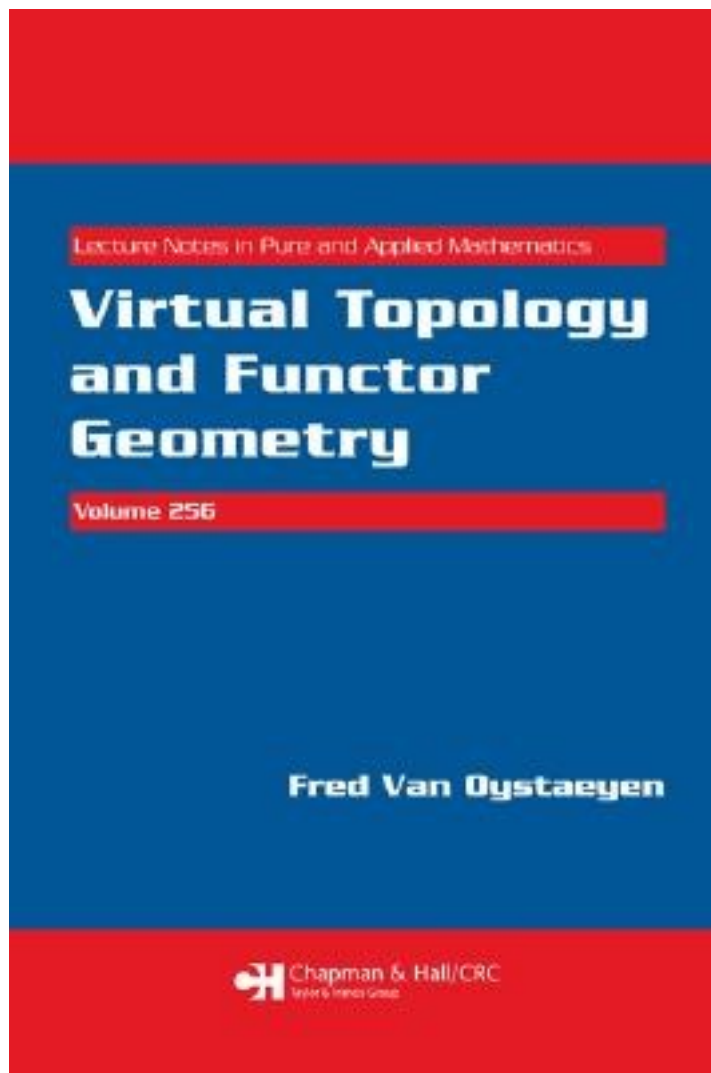


Virtual Topology and Functor Geometry



[Virtual Topology and Functor Geometry_下载链接1](#)

著者:Van Oystaeyen, Fred

出版者:CRC Press

出版时间:2007

装帧:Pap

isbn:9781420060560

Intrinsically noncommutative spaces today are considered from the perspective of several branches of modern physics, including quantum gravity, string theory, and statistical physics. From this point of view, it is ideal to devise a concept of space and its geometry that is fundamentally noncommutative. Providing a clear introduction to noncommutative topology, Virtual Topology and Functor Geometry explores new aspects of these areas as well as more established facets of noncommutative algebra.

Presenting the material in an easy, colloquial style to facilitate understanding, the book begins with an introduction to category theory, followed by a chapter on noncommutative spaces. This chapter examines noncommutative lattices, noncommutative opens, sheaf theory, the generalized Stone space, and Grothendieck topology. The author then studies Grothendieck categorical representations to formulate an abstract notion of "affine open". The final chapter proposes a dynamical version of topology and sheaf theory, providing at least one solution of the problem of sheafification independent of generalizations of topos theory.

By presenting new ideas for the development of an intrinsically noncommutative geometry, this book fosters the further unification of different kinds of noncommutative geometry and the expression of observations that involve natural phenomena.

作者介绍:

目录: FOREWORD
INTRODUCTION
PROJECTS
A TASTE OF CATEGORY THEORY
Basic Notions
Grothendieck Categories
Separable Functors
NONCOMMUTATIVE SPACES
Small Categories, Posets, and Noncommutative Topologies
The Topology of Virtual Opens and Its Commutative Shadow
Points and the Point Spectrum: Points in a Pointless World
Presheaves and Sheaves over Noncommutative Topologies
Noncommutative Grothendieck Topologies
The Fundamental Examples I: Torsion Theories
The Fundamental Examples II: $L(H)$
Ore Sets in Schematic Algebras
GROTHENDIECK CATEGORICAL REPRESENTATIONS
Spectral Representations
Affine Elements
Quotient Representations
Noncommutative Projective Space
SHEAVES AND DYNAMICAL TOPOLOGY
Introducing Structure Sheaves
Dynamical Presheaves and Temporal Points
The Spaced-Time Model
BIBLIOGRAPHY
INDEX
• • • • • [\(收起\)](#)

[Virtual Topology and Functor Geometry_ 下载链接1](#)

标签

评论

[Virtual Topology and Functor Geometry_ 下载链接1](#)

书评

[Virtual Topology and Functor Geometry_ 下载链接1](#)