Título:

Autor:

Editorial:

Tema:

Precio: $710.71

Año: 1994

Edición: 2ª

Sinopsis

ISBN: 9789810220341

This is an introduction to the basic tools of mathematics needed to understand the relation between knot theory and quantum gravity. The book begins with a rapid course on manifolds and differential forms, emphasizing how these provide a proper language for formulating Maxwell's equations on arbitrary spacetimes. The authors then introduce vector bundles, connections and curvature in order to generalize Maxwell theory to the Yang-Mills equations. The relation of gauge theory to the newly discovered knot invariants such as the Jones polynomial is sketched. Riemannian geometry is then introduced in order to describe Einstein's equations of general relativity and show how an attempt to quantize gravity leads to interesting applications of knot theory.