

Librería
Bonilla y Asociados
desde 1950



Título: Geometry Of Nonholonomically Constrained Systems

Autor: Cushman, Richard

Precio: \$1712.50

Editorial:

Año: 2009

Tema:

Edición: 1^a

Sinopsis

ISBN: 9789814289481

This book gives a modern differential geometric treatment of linearly nonholonomically constrained systems. It discusses in detail what is meant by symmetry of such a system and gives a general theory of how to reduce such a symmetry using the concept of a differential space and the almost Poisson bracket structure of its algebra of smooth functions. The above theory is applied to the concrete example of Carathéodory's sleigh and the convex rolling rigid body. The qualitative behavior of the motion of the rolling disk is treated exhaustively and in detail. In particular, it classifies all motions of the disk, including those where the disk falls flat and those where it nearly falls flat.

The geometric techniques described in this book for symmetry reduction have not appeared in any book before. Nor has the detailed description of the motion of the rolling disk. In this respect, the authors are trail-blazers in their respective fields.