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Autore	Sniatycki Jedrzej
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Sommario/riassunto	In this book the author illustrates the power of the theory of subcartesian differential spaces for investigating spaces with singularities. Part I gives a detailed and comprehensive presentation of the theory of differential spaces, including integration of distributions on subcartesian spaces and the structure of stratified spaces. Part II presents an effective approach to the reduction of symmetries. Concrete applications covered in the text include reduction of symmetries of Hamiltonian systems, non-holonomically constrained

systems, Dirac structures, and the commutation of quantization with reduction for a proper action of the symmetry group. With each application the author provides an introduction to the field in which relevant problems occur. This book will appeal to researchers and graduate students in mathematics and engineering.