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Sommario/riassunto	An introduction to semi-Riemannian geometry as a foundation for general relativity Semi-Riemannian Geometry: The Mathematical Language of General Relativity is an accessible exposition of the mathematics underlying general relativity. The book begins with background on linear and multilinear algebra, general topology, and real analysis. This is followed by material on the classical theory of curves and surfaces, expanded to include both the Lorentz and Euclidean signatures. The remainder of the book is devoted to a discussion of smooth manifolds, smooth manifolds with boundary, smooth manifolds with a connection, semi-Riemannian manifolds, and differential operators, culminating in applications to Maxwell's equations and the Einstein tensor. Many worked examples and detailed diagrams are provided to aid understanding. This book will appeal especially to physics students wishing to learn more differential geometry than is usually provided in texts on general relativity.

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