



General Relativity

By Wald, Robert M.

University Of Chicago Press, 1984. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service!

Summary: Preface Notation and Conventions PART I.

FUNDAMENTALS 1. Introduction 1.1 Introduction 1.2 Space and Time in Prerelativity Physics and in Special Relativity 1.3 The Spacetime Metric 1.4 General Relativity 2. Manifolds and Tensor Fields 2.1 Manifolds 2.2 Vectors 2.3 Tensors; the Metric Tensor 2.4 The Abstract Index Notation 3. Curvature 3.1 Derivative Operators and Parallel Transport 3.2 Curvature 3.3 Geodesics 3.4 Methods for Computing Curvature 4. Einstein's Equation 4.1 The Geometry of Space in Prerelativity Physics; General and Special Covariance 4.2 Special Relativity 4.3 General Relativity 4.4 Linearized Gravity: The Newtonian Limit and Gravitational Radiation 5. Homogeneous, Isotropic Cosmology 5.1 Homogeneity and Isotropy 5.2 Dynamics of a Homogeneous, Isotropic Universe 5.3 The Cosmological Redshift; Horizons 5.4 The Evolution of Our Universe 6. The Schwarzschild Solution 6.1 Derivation of the Schwarzschild Solution 6.2 Interior Solutions 6.3 Geodesics of Schwarzschild: Gravitation Redshift, Perihelion Precession, Bending of Light, and Time Delay 6.4 The Kruskal Extension PART II. ADVANCED TOPICS 7. Methods for Solving Einstein's Equation 7.1 Stationary, Axisymmetric Solutions 7.2 Spatially Homogeneous Cosmologies 7.3 Algebraically Special Solutions 7.4 Methods for Generating Solutions 7.5 Perturbations 8. Casual Structure 8.1 Futures and Pasts: Basic Definitions and Results 8.2 Causality Conditions 8.3 Domains of Dependence; Global Hyperbolicity 9. Singularities 9.1 What is a Singularity? 9.2 Timelike and Null Geodesic Congruences 9.3 Conjugate Points 9.4 Existence of Maximum

Reviews

Unquestionably, this is the best operate by any article writer. It is really basic but surprises from the 50 % of the ebook. I realized this ebook from my i and dad suggested this ebook to discover.

-- **Kacie Schroeder**

This pdf could be well worth a read through, and a lot better than other. It is amongst the most incredible publication i have got read through. I discovered this book from my dad and i recommended this publication to discover.

-- **Sadye Hilll**