

## Contents

<i>Preface</i>	v
<b>Beginnings of the Cauchy problem for Einstein's field equations</b> YVONNE CHOQUET-BRUHAT	1
<b>On strong cosmic censorship</b> JAMES ISENBERG	17
<b>Geometric asymptotics and beyond</b> HELMUT FRIEDRICH	37
<b>Gravitational waves and their memory in general relativity</b> LYDIA BIERI, DAVID GARFINKLE, SHING-TUNG YAU	75
<b>Geometry and physics of null infinity</b> ABHAY ASHTEKAR	99
<b>Rigidity results in general relativity: A review</b> ALEXANDRU D. IONESCU, SERGIU KLAINERMAN	123
<b>Decay of linear waves on black hole space-times</b> DANIEL TATARU	157
<b>Spin geometry and conservation laws in the Kerr spacetime</b> LARS ANDERSSON, THOMAS BÄCKDAHL, PIETER BLUE	183
<b>Conserved quantities of harmonic asymptotic initial data sets</b> PO-NING CHEN, MU-TAO WANG	227
<b>On proving future stability of cosmological solutions with accelerated expansion</b> HANS RINGSTRÖM	249
<b>An alternative proposal for the anomalous acceleration</b> JOEL SMOLLER, BLAKE TEMPLE, ZEKE VOGLER	267
<b>Euclidean-signature semi-classical methods for quantum cosmology</b> VINCENT MONCRIEF	277
<b>Geons and the instability of anti-de Sitter spacetime</b> GARY T. HOROWITZ, JORGE E. SANTOS	321