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BEYOND SPACETIME

One of the greatest challenges in fundamental physics is to reconcile quantum mechanics and general relativity in a theory of quantum gravity. A successful theory would have profound consequences for our understanding of space, time, and matter. This collection of essays written by eminent physicists and philosophers discusses these consequences and examines the most important conceptual questions among philosophers and physicists in their search for a quantum theory of gravity. Comprised of three parts, the book explores the emergence of classical spacetime; the nature of time; and important questions of the interpretation, metaphysics, and epistemology of quantum gravity. These essays will appeal to both physicists and philosophers of science working on problems in foundational physics, specifically that of quantum gravity.

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BEYOND SPACETIME

The Foundations of Quantum Gravity

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Contents

	List of Contributors	<i>page</i> vii
1	Introduction NICK HUGGETT, KEIZO MATSUBARA, AND CHRISTIAN WÜTHRICH	1
	Part I Spacetime Emergence	23
2	The Bronstein Hypercube of Quantum Gravity DANIELE ORITI	25
3	Emergence of Time in Loop Quantum Gravity SUDDHASATTWA BRAHMA	53
4	Beyond Standard Inflationary Cosmology ROBERT H. BRANDENBERGER	79
5	What Black Holes Have Taught Us about Quantum Gravity DANIEL HARLOW	105
	Part II Time in Quantum Theories of Gravity	115
6	Space and Time in Loop Quantum Gravity CARLO ROVELLI	117
7	Being and Becoming on the Road to Quantum Gravity; or, the Bir of a Baby Is Not a Baby	
	FAY DOWKER	133
8	Temporal Relationalism LEE SMOLIN	143

v

vi	Contents	
9	Back to Parmenides HENRIQUE GOMES	176
	Part III Issues of Interpretation	207
10	Why Black Hole Information Loss Is Paradoxical DAVID WALLACE	209
11	Chronic Incompleteness, Final Theory Claims, and the Lack of Free Parameters in String Theory RICHARD DAWID	237
12	Spacetime and Physical Equivalence SEBASTIAN DE HARO	257
13	On the Empirical Consequences of the AdS/CFT Duality RADIN DARDASHTI, RICHARD DAWID, SEAN GRYB, AND KARIM THÉBAULT	284
14	Extending Lewisian Modal Metaphysics from a Specific Quantum Gravity Perspective TIZIANA VISTARINI	304
15	What Can (Mathematical) Categories Tell Us about Spacetime? KO SANDERS	338
	Index	358

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vii

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viii

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