



THREE BIG BANGS



MATTER-ENERGY, LIFE, MIND

HOLMES ROLSTON III



PRAISE FOR *THREE BIG BANGS*

"Holmes Rolston III knows the art of seeing the big issues in the miniatures. While constantly attending to the details and detecting the differences of opinion among leading scientists, *Three Big Bangs* weaves together the best available knowledge we have about the trajectories that lead from matter-energy onwards to life and mind. The key idea is that the universe is ripe with information, and information is what is both reaped and released in the rarity of life and the uniqueness of humanity. This book is not only a scientifically updated guide for the perplexed. It is masterly written, and involves the reader in an open inquiry about the meaning in science as well as beyond science."

—NIELS HENRIK GREGERSEN, COPENHAGEN UNIVERSITY

"Rolston has found a creative way for integrating three of the most enduring, complex, and intriguing problems in the sciences today. A former Gifford Lecturer, he can look over the shoulders of scientists and the work they are doing and spot what is metaphysically interesting. A wonderful addition to the current science and religion dialogue."

—J. WENTZEL VAN HUYSTEEN, PRINCETON THEOLOGICAL SEMINARY, EDITOR,
ENCYCLOPEDIA OF RELIGION AND NATURE

"Rolston, 'the father of environmental ethics,' is not shy about asking unanswerable questions nor about giving a vast sweep of relevant data for reflection. An extraordinarily impressive and hugely stimulating book. The whole notion of writing about the three big bangs is in itself awesome."

—OWEN GINGERICH, HARVARD UNIVERSITY, AUTHOR OF *GOD'S UNIVERSE*

"*Three Big Bangs* takes us on the grand tour, from cosmic origins to the significance of the human spirit. Through it all, Rolston is a reliable guide, revealing both the marvel and mystery behind our biological and cosmic history and taking on both the critics of religion and the critics of science. Rolston's encyclopedic knowledge and poetic deftness continues to amaze me."

—GREG PETERSON, SOUTH DAKOTA STATE UNIVERSITY

"Rolston relates disparate perspectives on the nature of the universe that most scholars are content to leave unrelated. He infuses his book with scientific sources and a rich summation of what the specialists say about the history of the universe."

—DONALD W. SHRIVER JR., UNION THEOLOGICAL SEMINARY

"An important contribution not only to the field of science and religion but also to the wider world of intellectual culture. This readable work gives evidence not only of Rolston's breadth of learning in the various sciences, ranging from cosmology and biology to neuroscience, but also of his expertise in the philosophy of science and theology, qualities very few scientific thinkers can claim to possess."

—JOHN F. HAUGHT, GEORGETOWN UNIVERSITY, AUTHOR OF
MAKING SENSE OF EVOLUTION: DARWIN, GOD, AND THE DRAMA OF LIFE

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"*Three Big Bangs* is a scientifically informed meditation on three major historical developments of complexity that led to the existence of human beings in an evolving universe, examining the degree to which these developments were inevitable or simply the result of chance. Holmes Rolston III brings to the task a profound knowledge of biological development, and a deep wisdom about human nature."

—GEORGE ELLIS, UNIVERSITY OF CAPE TOWN

BY DIVIDING THE CREATION of matter, energy, life, and mind into three big bangs, Holmes Rolston III brings into focus a history of the universe that respects both scientific discovery and the potential presence of an underlying intelligence. Matter-energy appears, initially in simpler forms but with a remarkable capacity for generating heavier elements. The size and expansion rate of the universe, the nature of electromagnetism, gravity, and nuclear forces enable the explosion of life on Earth. DNA discovers, stores, and transfers information generating billions of species. Cognitive capacities escalate, and with neural sentience this results in human genius.

A massive singularity, the human mind gives birth to language and culture, increasing the brain's complexity and promoting the spread of ideas. Ideas generate ideals, which lead life to take on spirit. The nature of matter-energy, genes, and their genesis therefore encourages humans to wonder where they are, who they are, and what they should do.

HOLMES ROLSTON III is University Distinguished Professor of Philosophy Emeritus at Colorado State University, a Gifford Lecturer, and recipient of the Templeton Prize in Religion. He has lectured on seven continents, and his books include *Genes, Genesis, and God*; *Science and Religion: A Critical Survey*; *Philosophy Gone Wild*; and *Environmental Ethics*.

JACKET DESIGN BY JARROD TAYLOR

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Hyussteen, J. Wentzel van (2011). [[Review of the book Three Big Bangs: Matter-Energy, Life, Mind, by Holmes Rolston III](#)]. *Theology Today*, 68:1, 90-92.

Elizabeth A. Johnson (Theology, Fordham University) cites *Three Big Bangs* as “an artful essay on the history of the universe,” summarizing its contents, with further citations of various observations in the book. In *Ask the Beasts Darwin and the God of Love* (London: Bloomsbury Publishing Plc. 2014), citations on p. xiii, p. 112, p. 134-135, p. 174, p. 230, p. 234.

J. B. Stump (Philosophy, Bethel University, Mishawaka, Indiana; editor *BioLogos*) cites *Three Big Bangs* as “a short stimulating book” that leads (after matter-energy, life, and mind) to the “fourth big bang” of “spirit.” Concluding pages in J. B. Stump, *Science and Christianity: An Introduction to the Issues* (Chichester, West Sussex, UK: Wiley/Blackwell, 2017) on pp. 161-163.