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approach to nature's unity-in-diversity / / Steven M Rosen

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Nota di bibliografia Includes bibliographical references (p. [251]-257) and index.

Nota di contenuto

Introduction: Individuation and the quest for unity -- The obstacle to unification in modern physics -- Does contemporary mathematical physics actually -- Depart from the classical formulation -- Apparent concretization of mathematical physics via symmetry breaking -- The implicit attempt to maintain the classical formula and its ultimate failure -- The phenomenological challenge to the classical formula --Topological phenomenology -- Phenomenological intuition, topology, and the klein bottle -- The physical significance of the Klein bottle --Spin -- Vorticity -- The dimensional family of topological spinors --Generalization of intuitive topology -- Topodimensional spin matrix --Basic principles of dimensional transformation -- Synsymmetry and the self-transformation of space -- From symmetry breaking to dimensional generation -- The three basic stages of dimensional generation -- Kleinian topogeny -- Waves carrying waves: the coevolution of lifeworlds -- The forces of nature -- The phenomenon of light -- Phenomenological Kaluza-Klein theory -- Summary comparison of conventional and topo-phenomenological approaches to kaluza-klein theory -- Cosmogony, symmetry, and phenomenological intuition -- Conventional view of the evolving cosmos -- The problem of symmetry -- A new kind of clarity -- The self-evolving cosmos --Introduction to the cosmogonic matrix -- Overview of cosmic evolution -- The role of the fermions in dimensional generation -- Projective

stages of cosmogony: dimensional divergence -- Stage 1 -- Stage 2 -- Stages 3 and 4 -- Proprioceptive stages of cosmogony: dimensional convergence -- Conclusion: Wider horizons of cosmic evolution -- The psychophysics of cosmogony -- Psychical aspects of the fundamental particles -- Toward a reflexive physics -- Concretization of the self-evolving cosmos.

Sommario/riassunto

This unique book offers an original way of thinking about two of the most significant problems confronting modern theoretical physics: the unification of the forces of nature and the evolution of the universe. In bringing out the inadequacies of the prevailing approach to these questions, the author demonstrates the need for more than just a new theory. The meanings of space and time themselves must be radically rethought, which requires a whole new philosophical foundation. To this end, the book turns to the phenomenological writings of Maurice Merleau-Ponty and Martin Heidegger. Their insig