

Logic, universal symmetry and theories of everything

by

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The formulation of the special and general theories of relativity, brought to light a fundamental principle, which we call the universality of symmetry. According to this principle, the symmetry group of the space-time manifold must be identical to the dynamical symmetry group of the physical fields on the manifold. This paper seeks to explore the program of unifying the forces of nature pursued by successor theories, which involve additional compactified dimensions, the forerunner of which was the Kaluza-Klein theory. In its evolved contemporary avatars, the theories of everything bring together the very small and the very large, uniting cosmology with microphysics. An 'axiomatization' of such theories must be regarded as a valuable tool in establishing their consistency, quite apart from the question of empirical support.

Logic

Universal Symmetry

Theories of everything