A Simple Model and Unified Theory of Elementary Particles and Interactions (UTOEPI) ASHOK SINHA, University of Maryland (Retired) — This paper introduces a new paradigm involving the concept of a three-dimensional time which, together with the usual three-dimensional space, forms a six-dimensional spacetime, as an extension of Einstein's 4-D spacetime continuum, for explaining elementary particle and cosmological phenomena. A simple unified theory of elementary particles and the four basic interactions is developed, including a parametric representation of the elementary particle masses in terms of the basic parameters of the interactions. The questions of supersymmetry and the Higgs field are briefly discussed. Development of a statistical theory (Maxwell-Boltzmann Equation) of a relativistic quark-gluon plasma in the manifestly 4-covariant and 6-covariant forms is indicated, illustrating the interrelations among the four interactions.

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