

Abstract Submitted
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The 7 Elementary Fields of Particle Physics ALAN M. KADIN, Retired, Princeton Junction, NJ — The standard model includes over 60 particles, including antiparticles, flavors, and colors. That is too many to be truly fundamental. In a novel conceptual picture, these particles are mostly binary “molecules” of 7 elementary fields: the electric field and a conjugate charge field, the weak field and a conjugate lepton field, and 3 color fields (red, blue, and green). For example, the electron is composed of a charge field bound to a lepton field; a quark is composed of a charge field bound to a color field; and a gluon is two coupled color fields. This picture further envisions distributed mass, charge, and spin associated with rotation of vector fields. Antiparticles and flavors follow simply within this picture. This is not yet a theory, but implications for development of a theory will be discussed.

Alan M. Kadin
Retired, Princeton Junction, NJ

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