Generalization of the Klein-Gordon-Dirac expression for particles D.T. FROEDGE, Formerly Auburn University — This paper puts fourth the proposition that Klein-Gordon-Dirac wave equation is derivable from a more general expression, and the solutions of the more general expression illustrate known particle properties, including potentials and mass ratios. The particle solutions of the general expression encompass the particles general properties as well as the electromagnetic interaction with other particles in the system. A plausible derivation of the mass ratios for particles is shown to imply certain allowed internal modes, which allow separation of the general equation into periodic and non-periodic equations. The modes and mass ratios are shown for the leptons, the proton, the neutron and the W boson.

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