

It is well known that the flux tube between a static quark-antiquark pair has a spectrum of string-like excitations in a confining gauge theory. In this talk I will provide numerical evidence that there is also a spectrum of excitations for the gauge + scalar fields surrounding isolated static fermions in the Higgs phase of gauge Higgs theories, where no color flux tube exists. The examples to date are SU(3) and abelian gauge Higgs theories, the non-relativistic Landau-Ginzburg model, and a U(1) chiral (Smit-Swift) gauge Higgs theory. In all of these cases we show the existence of localized stable excitations of the field surrounding isolated static charges. This would appear as a mass spectrum for isolated (and non-composite) “elementary” particles. It is conceivable that such excitations might exist in ordinary superconductors, and in the electroweak sector of the Standard Model.