

DECAY OF EXCESS FOR THE ABELIAN HIGGS MODEL

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Entire critical points of the Yang–Mills–Higgs functional are known to blow down to (generalized) minimal surfaces. Goal of the talk is to prove an Allard's type large scale regularity result for the zero set of the solution. In particular, in the "multiplicity one" energy regime, we show uniqueness blow-downs and we classify entire solutions in small dimensions and of entire minimizers in any dimension.

This is based on a joint work with Aria Halavati and Alessandro Pigati.