

Topological defects: spatial features and approach to equilibrium

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We present spatial features of topological defects formed through a first-order phase transition proceeding by bubble nucleation. We use recent results of quantitative homotopy theory to this end. We use isoperimetric-type arguments to infer the rate at which such defects, mainly strings, approach a stable or metastable equilibrium configuration. Applications of this approach may be of interest in condensed matter, high energy and cosmological contexts.