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An effective-theory perspective on bubble nucleation and growth

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Certain aspects of phase transition dynamics, at least the initial nucleations and subsequent growth, can be described within the framework of fluctuating hydrodynamics, extended by a scalar order parameter. A strength of this formulation is that the contributions of small and large momenta can be factorized. We describe the ideas and limitations behind this approach, and how it can be used for determining the small-gradient limit of the friction term that appears in the equation of motion of the Higgs field.

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