

# Transitions between topologically non-trivial configurations

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## Abstract

© Published under licence by IOP Publishing Ltd. We study formation and evolution of solitons within a model with two real scalar fields with the potential having a saddle point. The set of these configurations can be split into disjoint equivalence classes. We give a simple expression for the winding number of an arbitrary closed loop in the field space and discuss the evolution scenarios that change the winding number. These non-trivial field configurations lead to formation of the domain walls in the three-dimensional physical space.

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