Uniqueness of the topological multivortex solution in the self-dual Chern-Simons theory

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Abstract

We establish uniqueness result for the topological multivortex solution to the self-dual equations of the abelian relativistic Chern-Simons-Higgs model which Hong-Kim-Pac and Jackiw-Weinberg proposed in 1990. We prove that the topological multivortex solution is unique if the Chern-Simons coupling parameter $\kappa > 0$ is sufficiently small.

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