

Topological Excitation in Skyrme Theory

DUAN Yi-Shi, ZHANG Xin-Hui, and LIU Yu-Xiao

Institute of Theoretical Physics, Lanzhou University, Lanzhou 730000, China
(Received: 2006-3-1; Revised:)

Abstract: Based on the φ -mapping topological current theory and the decomposition of gauge potential theory, we investigate knotted vortex lines and monopoles in Skyrme theory and simply discuss the branch processes (splitting, merging, and intersection) during the evolution of the monopoles.

PACS: 12.39.Dc, 11.27.+d, 21.60.Fw

Key words: Skyrme theory, knots, monopoles

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