

Theory of Condensed Matter: Hard Condensed Matter

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Current-induced Skyrmion creation and Skyrmion fission

Magnetic Skyrmions are considered to be topologically stable objects. However, in discrete lattices this topological protection is not infinite but can actually be overcome. This means that Skyrmions can be created or destroyed. We show how this can be done theoretically by electrical currents which may be either in in-plane or out-of-plane direction.