## On Landau-Lifshitz Type Equation with periodic boundary condition

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## Abstract

The paper is concerned with Landau-Lifshitz type Equation in the bounded domain with  $\Lambda$  (the square root of  $-\Delta$ ) instead of the desired operator  $\nabla((-\Delta)^{-\frac{1}{2}}\nabla \cdot)$ . The problem was first raised by DeSimone et. al and the whole space case was treated by us. Now we solve this problem in the case of bounded domain.

**Key words**: Square root of  $-\triangle$ , Penalized equation, Landau-Lifshitz type Equation, Commutator.