Ginzburg Landau equations with two order parameters

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Abstract

We study a $G - L$ model for high-T_c superconductivity described with two complex valued order parameters; a dominant d-wave component and a small admixture of an s-wave component. In this model, if the $s - d$ mixing parameter is zero then the the system reduces to the standard single component $G - L$ equation. We investigate the case of a small mixing parameter and the nucleation of the second component.

This is joint work with *Minkyun Kim*.