

# Shape of the nuclear magnetic resonance line in anisotropic superconductors with an irregular vortex lattice

Minkin A., Tsarevskii S.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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## Abstract

The NMR line shape in type-II superconductors has been constructed with allowance for a change in the nonuniform magnetic field of an irregular vortex lattice near the surface of a superconductor. The NMR line shape is shown to change as a function of the irregularity of the vortex lattice rather than being simply broadened. This change is related to a lowering of the local symmetry of the irregular vortex lattice in the superconductor. This circumstance can substantially change the conclusions regarding the vortex-lattice type and the superconductor parameters that are usually drawn from the NMR line shape. © Pleiades Publishing, Inc., 2006.

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