Contribution Title:

Authors: Presenting author: Affilation: E-mail: Invited speaker: YRS seminar:

SUPERCONDUCTIVITY NEAR SECOND CRITICAL FIELD S. Fournais Fournais S. University of Aarhus fournais@imf.au.dk Topical session NO

In the Ginzburg-Landau model of superconductions of Type II one encounters the so-called second critical field at which superconductivity changes from being a bulk phenomenon to a boundary phenomenon. In this talk we will discuss how the order parameters decay with the distance to the boundary for magnetic field strengths slightly above the critical field. Also we derive optimal bounds on the magnitude of the order parameter in the bulk region when the external magnetic field is slightly below the critical value.