Minisymposium 15 - Operatortheorie

Elliptic Problems on Varying Domains

Markus Biegert (University of Ulm)

The aim of this talk is to show optimal results on local and global uniform convergence of solutions to elliptic equations with Dirichlet boundary conditions on varying domains. We assume that the limit domain be stable in the sense of Keldyš. We further assume that the approaching domains satisfy a necessary condition in the inside of the limit domain, and only require L^2-convergence outside. As a consequence, uniform and L^2-convergence are the same in the trivial case of homogenisation of a perforated domain.