

# ITERATIVE METHOD FOR A BIHARMONIC PROBLEM WITH CRACK SINGULARITIES

Dang Q. A, Truong H. H, Vu V. Q

## TÓM TẮT:

In this paper we consider a problem with mixed boundary conditions for biharmonic equation, which is a generalization of a model of crack problems in the plane theory of elasticity. An iterative method for reducing the problem to sequence of mixed problems for Poisson equation is proposed and investigated. For numerical solution of the latter problems, we use a domain decomposition method developed by ourselves in recent years. The fast convergence of the iterative method is established theoretically and illustrated on many numerical experiments.