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COMPARATIVE NUMERICAL ANALYSIS OF METHODS FOR SOLVING BOUNDARY VALUE PROBLEMS WITH DEGENERACY PROPERTY ALONG THE ENTIRE DOMAIN BOUNDARY

We proposed an algorithm and carried out a comparative analysis of the classical finite element method and a method with special condensation of grids for the Dirichlet problem with a degeneracy property solution along the entire boundary of two-dimensional domain. We obtained experimental corroboration of theoretical estimations for accuracy and drew some conclusions.

Keywords: boundary value problems with degeneracy property along the entire boundary, finite element method, condensation of grids.

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