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CONSTRUCTIVE METHOD FOR THE SOLUTION OF SINGULAR INTEGRAL EQUATIONS WITH HILBERT NUCLEUS IN HOLDER SPACES

Abstract

The constructive method for the solution of linear singular integral equations with Hilbert nucleus in Holder spaces was suggested and substantiated. In the developed constructive method, the singular operator is approximated by the operators preserving the main features of this operator, and this enables to get more accurate estimations from the point of view of convergence rate, than the earlier used methods. Furthermore, this method requires less calculating expenditures since it allows to find the approximate solution in the explicit way (but not at separate points), and the coefficients of appropriate systems of linear algebraic equations are easily calculated.