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KOLMOGOROV TYPE INEQUALITIES FOR HYPERSINGULAR INTEGRALS WITH HOMOGENEOUS CHARACTERISTIC

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This paper is dedicated to Professor Themistocles M. Rassias.

Submitted by G. V. Milovanović

ABSTRACT. New sharp Kolmogorov type inequalities for hypersingular integrals with homogeneous characteristic of multivariate functions from Hölder spaces are obtained. Proved inequalities are used to solve the Stechkin's problem on the best approximation of unbounded hypersingular integral operator by bounded ones on functional classes which are defined by a majorant of the modulus of continuity.

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