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ON FREDHOLM PROPERTY OF MATRIX SINGULAR INTEGRAL OPERATORS IN THE HÖLDER SPACES WITH THE WEIGHT DEGENERATED ON SUBMANIFOLD OF SMALLER DIMENSION

Abstract

At the paper in terms of the symbol the problem on Fredholm property of matrix in the Hölder spaces is solved with the weighted generating on submanifold operators of Lipschitz manifold of smaller dimension. The element of matrix are multidimensional Mikhlin-Kalderon-Zygmund singular operators. In particular, in definite conditions on the symbol, a two-sided regularizer is constructed and it is proved that index of matrix operator in considered Hölder spaces with weight and in the space L_n^2 is the same.