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SHARP MAXIMAL FUNCTION INEQUALITIES AND BOUNDEDNESS OF TOEPLITZ TYPE OPERATOR RELATED TO GENERAL FRACTIONAL INTEGRAL OPERATORS

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ABSTRACT. In this paper, we establish sharp maximal function inequalities for the Toeplitz type operator related to some general fractional integral operators. As an application, we obtain the boundedness of the operator on Lebesgue, Morrey and Triebel-Lizorkin spaces. The operators include Littlewood-Paley operator, Marcinkiewicz operator and Bochner-Riesz operator.

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