

A HILBERT-TYPE INTEGRAL INEQUALITY IN THE WHOLE PLANE WITH THE HOMOGENEOUS KERNEL

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Abstract. By using the way of weight functions and the technique of real analysis, a new Hilbert-type integral inequality with the homogeneous kernel of degree 0 in the whole plane with the best constant factor is given. As applications, the equivalent inequalities with the best constant factors, the reverses and some particular cases are obtained.

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