HARDY–TYPE INEQUALITIES VIA CONVEXITY

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Abstract. A recently discovered Hardy-Pólya type inequality described by a convex function is considered and further developed both in weighted and unweighted cases. Also some corresponding multidimensional and reversed inequalities are pointed out. In particular, some new multidimensional Hardy and Pólya-Knopp type inequalities and some new integral inequalities with general integral operators (without additional restrictions on the kernel) are derived.

Key words and phrases: inequalities, Hardy’s inequality, Pólya-Knopp’s inequality, multidimensional Hardy type inequalities, Hardy type operators with kernel, weights, convex, concave.

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