STOLARSKY–TOBEY MEAN IN n VARIABLES

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Abstract. In this paper, an n–dimensional weighted Stolarsky–Tobey mean is defined via measure. This mean includes as special cases various generalizations of the logarithmic mean. Some elementary properties are listed and various inequalities derived. Attention is given to the case when the mean is specialized to Dirichlet measure. Relations to hypergeometric function are exhibited. An explicit form is given for the mean in the special case when all variables have equal weights.

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