Bennewitz, Christer (S-LUND); Saitô, Yoshimi (1-AL2)
An embedding norm and the Lindqvist trigonometric functions. (English summary)

Summary: “We calculate the operator norm $\|T\|_p$ of the Hardy operator $Tf = \int_0^x f$, where $1 \leq p \leq \infty$. This operator is related to the Sobolev embedding operator from $W^{1,p}(0,1)/C$ into $W^p(0,1)/C$. For $1 < p < \infty$, the extremal, whose norm gives the operator norm $\|T\|_p$, is expressed in terms of the function $\sin_p$ which is a generalization of the usual sine function and was introduced by P. Lindqvist [Ricerche Mat. 44 (1995), no. 2, 269–290 (1996); MR1469702 (99g:33001)].”

References

2. D. E. Edmunds and Jan Lang, Behaviour of the approximate number of a Sobolev embedding in the one-dimensional case, Preprint.

Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.

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