1096-47-2550 **Duaine S Lewis***, Department of Mathematics, The University of the West Indies, Cave Hill, P.O. Box 64, Bridgetown, St Michael BB11000, Barbados, and **Bernd Sing** (bernd.sing@cavehill.uwi.edu), Department of Mathematics, The University of the West Indies, Cave Hill, P.O. Box 64, Bridgetown, St Michael BB11000, Barbados. *An upper bound on the Kolmogorov widths of a certain family of integral operators.* Preliminary report.

We consider the family of integral operator $(K_\alpha f)(x)$ from $L^p[0,1]$ to $L^q[0,1]$ where $(K_\alpha f)(x) := \int_0^1 f(y)(1-xy)^{\alpha-1}dy$ with $0<\alpha<1$; the main objective is to find upper bounds for the Kolmogorov widths. The n-th Kolmogorov width is the infimum of the deviation of $(K_\alpha f)$ from an n-dimensional subspaces of $L^q[0,1]$ (where the infimum is taken over all n-dimensional subspaces), and is therefore a measure how well $(K_\alpha f)$ can be approximated. We find upper bounds for the Kolmogorov widths in question that decrease exponentially in n. (Received September 17, 2013)