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Timur Oikhberg* (toikhber@math.uci.edu), Dept. of Mathematics, University of California - Irvine, Irvine, CA 92697-3875. *Hyperreflexivity and operator ideals*. Preliminary report.

Suppose A is a regular operator ideal, equipped with a norm $\alpha(\cdot)$. If an operator T does not belong to A , set $\alpha(T) = \infty$. A subspace Z of $B(X, Y)$ (X and Y are Banach spaces) is said to be A -hyperreflexive if there is a constant C s.t.

$$\inf\{\alpha(T - S) : S \in Z\} \leq C \sup\{\alpha(q_{ZE}Ti_E) : E \hookrightarrow X\}$$

for every $T \in B(X, Y)$ (here, the supremum on the right is taken over all subspaces E of X ; i_E and q_{ZE} denote the embedding of E into X and the quotient of Y by the closure of ZE , respectively). Note that the usual notion of hyperreflexivity arises when A is the ideal of all bounded operators, with $\alpha(T) = \|T\|$. We investigate criteria for A -hyperreflexivity or lack thereof. (Received February 04, 2006)