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Narcisse Randrianantoanina*, Department of Mathematics, Miami University, Oxford, OH 45056. *Embeddings of non-commutative L^p -spaces into preduals of finite von Neumann algebras.* Preliminary report.

Let M be a (not necessarily semi-finite) von Neumann algebra. We prove that there exists a finite von Neumann algebra N so that for $1 \leq q < p < 2$, $L^p(M)$ embeds isomorphically into $L^q(N)$ (as Banach spaces). The proof uses non-commutative generalizations of technics from r.i. function spaces and a non-commutative analogue of a classical result of Rosenthal on embedding reflexive subspaces of L^1 -spaces into L^p -spaces. (Received January 31, 2006)