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Thomas Kühn* (kuehn@math.uni-leipzig.de), Mathematisches Institut, Universität Leipzig,
Augustusplatz 10-11, D-04109 Leipzig, Germany. *Extrapolation of metric entropy.*

Extrapolation techniques, mostly based on norm estimates, are an important tool in analysis and have been successfully applied to many different problems. In the 1980s Jawerth and Milman initiated a systematic study of general extrapolation methods and their close relations to interpolation theory.

During the last decade there has been an increasing interest in metric entropy, in particular in the theory of function spaces, the main motivation being applications to spectral theory of differential operators.

In the talk we present first an abstract result on extrapolation of entropy numbers of operators, using the Δ -method in the target spaces. Then some applications to limiting Sobolev embeddings will be given, in this way improving recent results by Belinsky and Trebels.

The talk is based on joint work (in progress) with T. Schonbek. (Received January 27, 2006)