

## Box dimension, oscillation and smoothness in function spaces\*

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**Abstract.** The aim of this paper is twofold. First we relate upper and lower box dimensions with oscillation spaces, and we develop embeddings or inclusions between oscillation spaces and Besov spaces. Secondly, given a point in the  $(\frac{1}{p}, s)$ -plane we determine maximal and minimal values for the upper box dimension (also the maximal value for lower box dimension) for the graphs of continuous real functions with a compact support, represented by this point.

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