

ESSENTIAL NORMS AND LOCALIZATION MODULI OF SOBOLEV EMBEDDINGS

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ABSTRACT. We introduce new measures of non-compactness for the Sobolev embedding operator and describe their relations with the essential norm of the Sobolev embedding, "local" isoperimetric and isocapacitary constants. An explicit formulae for the essential norm of Sobolev embedding is obtained for domains with a power cusp on the boundary and bounded smooth domains. The Neumann problem for a particular Schrodinger operator is discussed on domains with a power cusp. This is a joint work with V. Maz'ya.