Mathematical
Inequalities
& Applications
Volume 6, Number 1 (2003), 105–120

CERTAIN IMBEDDINGS OF WEIGHTED SOBOLEV SPACES

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Abstract. We characterize weight functions for which the weighted Sobolev space $W^{1,p}(\Omega, d_M^{\beta})$ [and also $W^{1,p}(\Omega, s_0(d_M))$] is imbedded continuously or compactly into the weighted Lebesgue space $L^q(\Omega, d_M^{\alpha})$ [and also $L^q(\Omega, s_1(d_M))$] where $1 \leqslant q < p < \infty$ and $M \subset \partial\Omega$. Some of the imbeddings are also extended to the higher order weighted Sobolev spaces.

Mathematics subject classification (2000): 46E35.
Key words and phrases: weighted Sobolev spaces, continuous imbedding, compact imbedding.

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Paper MIA-06-10