Jinling Niu\* (niujinling@hit.edu.cn) and Yuming Xing. Imbedding Theorems for Composition of Homotopy and Projection Operators.

We prove both local and global imbedding theorems with  $L^{\varphi}$ -norms for the composition of the homotopy operator and projection operator applied to differential forms. We also establish some  $L^{\varphi}$ -norm inequalities for certain compositions of the related operators. (Received September 25, 2017)