

Abstract: Given a rearrangement-invariant Banach function space $Y(\Omega)$, we consider the problem of the existence of an optimal (largest) domain Orlicz space $L^A(\Omega)$ satisfying the Sobolev embedding $W^m L^A(\Omega) \hookrightarrow Y(\Omega)$. We present a complete solution of this problem within the class of Marcinkiewicz endpoint spaces which covers several important examples.