

For a lower bound on the stability, consider the example $A = [0, 1]^n$ and $B = [0, 1 + \delta]^{n/2} \times [0, (1 + \delta)^{-1}]^{n/2}$. By choosing δ appropriately, the stability in terms of the measure of the symmetric difference scales like n^2 (although the stability in terms of the Wasserstein distance remains fixed as n grows). This scaling is actually the worst that is known, so it is possible that the bound of Figalli, Maggi and Pratelli (which grows like n^7) could be improved.