## A framework for Wasserstein-1-type metrics for applications in imaging and image processing

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We propose a unifying framework for generalising the Wasserstein-1 metric to a dissimilarity between nonnegative measures of different mass. This generalisation inherits the convexity and computational efficiency from the Wasserstein-1 metric, and it includes several previous approaches from the literature as special cases. For various specific instances of the generalised Wasserstein-1 metric we furthermore demonstrate their behaviour in image processing applications.