AFFINITY KERNELS ON MEASURE SPACES AND MAXIMAL OPERATORS

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ABSTRACT. In this note we consider maximal operators defined in terms of families of kernels and families of their level sets. We prove a general estimate that extends some classical Euclidean cases and, under some mild transitivity property, we show their basic boundedness properties on Lebesgue spaces. The motivation of these problems have their roots in the analysis associated to affinity kernels on large data sets.