

1099-46-128

Henri Martikainen* (henri.martikainen@helsinki.fi), Department of Mathematics and Statistics, University of Helsinki, P.O.B. 68, 00014 Helsinki, Uusimaa, Finland. *Local L^p testing conditions and general measures.*

Local Tb theorems with L^p type testing conditions have been studied widely in the case of the Lebesgue measure. Until very recently, local Tb theorems in the non-homogeneous case had only been proved assuming scale invariant (L^∞ or BMO) testing conditions. In a joint work with M. Lacey we proved a non-homogeneous local Tb theorem with L^2 type testing conditions. The combination of non-scale-invariant testing conditions and general measures is a delicate issue. Our theorems are for square functions (vertical/conical) and for all Calderón–Zygmund operators. We shall discuss these results and, time permitting, extensions to L^p testing conditions (joint with M. Mourgoglou). (Received February 04, 2014)