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Tuomas Hytönen, Riikka Korte and Hong Yue. *On the space JN_p .*

The space JN_p , $1 < p < \infty$, consists of functions satisfying a condition, weaker than bounded mean oscillation, originally introduced in the work of John and Nirenberg, who showed that such functions lie in weak L^p . While JN_p contains L^p , it was not known whether it was strictly larger. We show this is true by means of an example, but that surprisingly the two spaces coincide in the case of monotone functions in one dimension. We also characterize JN_p as the dual of a new space defined in terms of atomic decomposition. (Received February 18, 2018)