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*The space  $JN_p$ : nontriviality and duality*

This is a joint work with Galia Dafni, Tuomas Hytönen and Riikka Korte.

We study a function space  $JN_p$  based on a condition introduced by John and Nirenberg as a variant of BMO. It is known that  $L^p \subset JN_p \subsetneq L^{p,\infty}$ , but otherwise the structure of  $JN_p$  is largely a mystery. Our first main result is the construction of a function that belongs to  $JN_p$  but not  $L^p$ , showing that the two spaces are not the same. Nevertheless, we prove that for monotone functions, the classes  $JN_p$  and  $L^p$  do coincide. Our second main result describes  $JN_p$  as the dual of a new Hardy kind of space  $HK_{p'}$ .