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On the John-Nirenberg constant of BMO^p , $0 < p < 1$. Preliminary report.

We present sharp L^p lower bounds for logarithms of A_∞ weights as a means of estimating the John-Nirenberg constant of the space BMO^p , $0 < p < 1$. The corresponding Bellman function solves the homogeneous Monge-Ampère equation, but the geometry of the solution goes beyond established theory due to the lack of regularity in the boundary condition. (Received September 20, 2021)