1127-42-281 **Adam Osękowski**, **Leonid Slavin*** (leonid.slavin@uc.edu) and **Vasily Vasyunin**. *The* BMO $\to$ BLO *norm of the dyadic maximal operator.* Preliminary report.

We construct the Bellman functions for the action of the dyadic maximal operator M (or a more general operator on trees) from BMO($\mathbb{R}^n$) to BLO. These functions solve a Monge–Ampere PDE on a non-convex planar domain, exhibit fairly sophisticated geometric structure, and explicitly depend on dimension (eccentricity of the tree). However, surprisingly, the actual BMO $\to$ BLO norm of M is dimension-free: it equals 1 for all n. A similar phenomenon is observed in related formulations, such as the action of M between weight classes and on A_p-weighted L^p. (Received February 06, 2017)