

1046-11-1867

**Dmitry Kleinbock\*** (kleinboc@brandeis.edu), Department of Mathematics, Brandeis University, Waltham, MA 02454, and **Gregory Margulis** and **Junbo Wang**. *Metric Diophantine approximation for systems of linear forms via homogeneous dynamics*. Preliminary report.

The goal of this work is to generalize results on strong extremality of nondegenerate submanifolds of  $\mathbb{R}^n$  to the set-up of systems of linear forms. In particular, we establish ‘joint strong extremality’ of arbitrary finite collection of smooth nondegenerate submanifolds of  $\mathbb{R}^n$ . The proof is based on quantitative nondivergence estimates for quasi-polynomial flows on the space of lattices. (Received September 16, 2008)