

1131-37-386

Dmitry Kleinbock* (kleinboc@brandeis.edu), Department of Mathematics, Brandeis University, Waltham, MA 02454, and **Nick Wadleigh**, Department of Mathematics, Brandeis University, Waltham, MA 02454. *Shrinking targets on homogeneous spaces and improving Dirichlet's Theorem.*

Optimal results on the metric theory for improvements to Dirichlet's Theorem are obtained in the one-dimensional case. For simultaneous approximation the problem is open. I will describe reduction of the problem to dynamics both in one-dimensional case (via continued fractions) and for higher dimensions (via diagonal flows on the space of lattices). If time allows I'll speak about an inhomogeneous version which happens to be easier than the homogeneous one. (Received July 18, 2017)