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*Small values at integer points of generic subhomogeneous functions.*

This talk will be based on joint work with Dmitry Kleinbock that has been motivated by several recent papers (among them, those of Athreya extendash Margulis, Bourgain, Ghosh extendash Gorodnik extendash Nevo, Kelmer extendash Yu). Given a certain sort of group  $G$  and certain sorts of functions  $f : \mathbb{R}^n \rightarrow \mathbb{R}$  and  $\psi : \mathbb{R}^n \rightarrow \mathbb{R}_{>0}$ , we obtain necessary and sufficient conditions so that for Haar-almost every  $g \in G$ , there exist infinitely many (respectively, finitely many)  $v \in \mathbb{Z}^n$  for which  $|(f \circ g)(v)| \leq \psi(|v|)$ , where  $|\cdot|$  is an arbitrary norm on  $\mathbb{R}^n$ . We also give a sufficient condition in the setting of uniform approximation. As a consequence of our methods, we obtain generalizations to the case of vector-valued (simultaneous) approximation with no additional effort. In our work, we use probabilistic results in the geometry of numbers that go back several decades to the work of Siegel, Rogers, and W. M. Schmidt (Received February 13, 2021)