## 1145-46-1351Stephen J Dilworth\* (dilworth@math.sc.edu), Department of Mathematics, University of<br/>South Carolina, Columbia, SC 29208, and Denka Kutzarova and Mikhail I Ostrovskii.<br/>Lipschitz Free Spaces on Finite Metric Spaces.

Main results of the paper:

(1) For any finite metric space M the Lipschitz free space on M contains a large well-complemented subspace which is close to  $\ell_1^n$ .

(2) Lipschitz free spaces on large classes of recursively defined sequences of graphs are not uniformly isomorphic to  $\ell_1^n$  of the corresponding dimensions. These classes contain well-known families of diamond graphs and Laakso graphs.

Interesting features of our approach are: (a) We consider averages over groups of cycle-preserving bijections of graphs which are not necessarily graph automorphisms; (b) In the case of such recursive families of graphs as Laakso graphs we use the well-known approach of Grünbaum (1960) and Rudin (1962) for estimating projection constants in the case where invariant projections are not unique. (Received September 21, 2018)