

1094-51-251

S. J. Dilworth, Denka Kutzarova and N. Lovasoa Randrianarivony* (nrandria@slu.edu).
Laakso construction and property (β) .

Laakso graphs are widely recognized in Metric Geometry because of their important properties. For example, they do not bi-Lipschitz embed in a uniform fashion into a rounded ball space ([Laakso], [Tyson]), and conversely a Banach space is superreflexive if and only if the Laakso graphs do not uniformly bi-Lipschitz embed into it ([Johnson, Schechtman]).

Property (β) is a geometric property of Banach spaces that generalizes uniform convexity. We show that having an equivalent norm with property (β) is preserved under uniform quotient mappings between separable Banach spaces. An important ingredient in the proof is a graph we construct in the Laakso fashion. (Received August 26, 2013)