1176-52-89 Valeriu Soltan* (vsoltan@gmu.edu). Locally polyhedral sets. Preliminary report.

A convex set K in the n-dimensional space is called locally polyhedral at its point x if there is an n-dimensional polytope P containing x in its interior such that the intersection of K and P is a polytope. Further, K is called locally polyhedral if it is locally polyhedral at every its point. Complementing the existing results, we show that a line-free closed convex set K is locally polyhedral if and only if the extreme set extK of K is discrete and K is locally polyhedral at every point of extK. (Received January 15, 2022)