

Characterization of differences of sublinear functions

Jerzy Grzybowski*

Abstract

We present necessary and sufficient conditions for a positively homogenous function defined on a plane to be a difference of sublinear (convex) functions. In the case of such a function we give a formula for producing two inclusion-minimal compact convex sets such that given function is equal to the difference of support functions of these sets. We also show several examples of application of our results.

*Adam Mickiewicz University, Poznań, Poland