

Wee-Kee Tang

On Fréchet differentiability of convex functions on Banach spaces

Comment.Math.Univ.Carolinae 36,2 (1995) 249-253.

Abstract: Equivalent conditions for the separability of the range of the subdifferential of a given convex Lipschitz function f defined on a separable Banach space are studied. The conditions are in terms of a majorization of f by a C^1 -smooth function, separability of the boundary for f or an approximation of f by Fréchet smooth convex functions.

Keywords: Fréchet differentiability, convex functions, variational principles, Asplund spaces

AMS Subject Classification: 46B03