

On Generalized Weak Subdifferentiability of Vector Valued Functions from \mathbb{R}^n to \mathbb{R}^m

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Abstract

In this work, by using special ordering cones $(\mathbb{R}_+^m, \mathbb{R}_{lex}^m)$ on \mathbb{R}^m and a special vectorial norm, it is shown that Lipschitzness of a vector valued function from \mathbb{R}^n to \mathbb{R}^m implies generalized lower Lipschitzness of this function. Then by using this notion necessary and sufficient conditions for generalized weak subdifferentiability of a vector valued function at a point are given.

References

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