

# MVT, Integration, and Monotonicity of a Generalized Subdifferential in Locally Convex Spaces

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## Abstract

We extend Zagrodny's Mean Value Theorem (MVT) to the class of weakly lower semicontinuous epi-pointed functions defined in locally convex spaces. With this at hand we extend the integration of generalized subdifferentials and the characterization of convexity via the monotonicity of the subdifferential.

## Keywords

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