

# Infimal Convolution and Optimal Time Control Problem II: Limiting Subdifferential

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## Abstract

This paper is the continuation of our study of a general minimal time problem with a convex constant dynamics and a lower semicontinuous extended real-valued target function defined on a Banach space. We study several properties of the limiting subdifferential for the infimum time function and we provide explicit expressions of the limiting subdifferential. Necessary and sufficient conditions for the infimum time function to be lower regular are presented. The sharpness of assumptions is shown through diverse examples.

## Keywords

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