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Lingyan Huang* (lingyan@math.lsu.edu), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803. *Convexity in Hamilton-Jacobi theory with measurable dependent time.*

In this paper, we consider a value function propagated from an initial cost and constraints by way of a differential inclusion through a Lagrangian with measurable time dependence. We show these value functions satisfy a subgradient form of the Hamilton-Jacobi equation with the aid of essential values. (Received September 17, 2008)