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**Boris Mordukhovich** ([boris@math.wayne.edu](mailto:boris@math.wayne.edu)), Department of Mathematics, Wayne State University, Detroit, MI 48202, and **Mau Nam Nguyen\*** ([nguyenmn@utpa.edu](mailto:nguyenmn@utpa.edu)), Department of Mathematics, University of Texas-Pan American, Edinburg, TX 78539. *Lipschitzian Stability and Optimal Value Functions via Generalized Differentiation.*

Robust Lipschitzian properties of set-valued mappings and optimal value functions play a crucial role in many aspects of nonsmooth analysis and its applications, especially for issues related to stability and optimization. We present new results on generalized differential calculus for set-valued mappings and singular subdifferentials of marginal functions in infinite dimensions with their extended applications to Lipschitzian stability. In this way we derive sufficient conditions ensuring the preservation of Lipschitzian and related properties for set-valued mappings under various operations, with the exact bound/modulus estimates, as well as new sufficient conditions for the Lipschitz continuity of optimal value functions. (Received September 09, 2007)