

Nonsmooth Optimization Approach to Stabilization for Uncertain Control System

Yan Gao

School of Management, University of Shanghai for Science and Technology,
Shanghai 200093, China

Abstract. This paper is devoted to numerical methods for stabilization of uncertain control system. A class of nonsmooth Lyapunov functions (max-type Lyapunov functions) is considered. First, the related nonsmooth optimization model and its optimality conditions are proposed. Then, an algorithm for solving this class of nonsmooth optimizations is presented.

Key words: nonsmooth optimization, stabilization, Lyapunov function.