

Michael Malisoff* (malisoff@lsu.edu), Department of Mathematics, Louisiana State University, Baton Rouge, LA 70803; **Ludovic Rifford** (rifford@desargues.univ-lyon1.fr), Institut Girard Desargues, Université Lyon 1, Bâtiment Braconnier, 21 Avenue Claude Bernard, 69622 Villeurbanne Cedex, France; and **Eduardo Sontag** (sontag@control.rutgers.edu), Department of Mathematics, Rutgers-New Brunswick, Hill Center-Busch Campus, 110 Frelinghuysen Road, Piscataway NJ 08854-8019, *Remarks on Input to State Stabilization*

We announce a new construction of a stabilizing feedback law for nonlinear globally asymptotically controllable (GAC) systems. Given a control affine GAC system, the feedback renders the closed loop system input to state stable with respect to actuator errors and observation errors, using sampling and Euler solutions. We also announce a variant of this result for fully nonlinear GAC systems. The proofs of our results are based on a recent construction of semi-concave Lyapunov functions.