

Only a Level Set of a Control Lyapunov Function for Homogeneous Systems

Hamadi Jerbi; Thouraya Kharrat

Abstract: In this paper, we generalize Artstein's theorem and we derive sufficient conditions for stabilization of single-input homogeneous systems by means of an homogeneous feedback law and we treat an application for a bilinear system.

Keywords: homogeneous systems; homogeneous feedbacks; stabilizability; sub manifold; vector field;

AMS Subject Classification: 93D15;