SMOOTHERS AND THEIR APPLICATIONS
IN AUTONOMOUS SYSTEM THEORY

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Abstract. In this paper the author introduces the concept of smoother. Roughly speaking, a smoother is a pair \((s, K)\) consisting of a continuous map \(s\) sending each point \(p\) of its domain into a closed neighborhood \(V_p\) of \(p\), and an operator \(K\) that transforms any function \(f\) into another \(Kf\) being smoother than \(f\). This property allows us to remove the effect of a perturbation \(P\) from the solutions of an autonomous system the vector field of which is modified by \(P\).

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