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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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