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Section:

9. Ordinary Differential Equations and Dynamical Systems

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A geometric approach to the asymptotic of systems of evolution equations

A theory for asymptotic properties of systems of evolution equations in terms of the properties of a subsystem on a subspace of lower dimension is presented. The idea is reducing the problem of studying the asymptotic behavior of a system defined on a state space X to a similar problem formulated on a space Y of lower dimension. This result is joint work with Peter Seibert.

Reference: Peter Seibert and J. H. Arredondo, Reduction Theorems for uniform stability of systems in general spaces, Bol. Soc. Mat. Mexicana (3) Vol. 3, 1997, 69-88.