

Kalas, Josef**The use of Lyapunov functions in uniqueness and nonuniqueness theorems.** (English)

Zbl 1090.34503

Arch. Math., Brno 36, Suppl., 469-476 (2000).

In the paper there is given a survey of nonuniqueness theorems for the initial value problem

$$x' = f(t, x) \quad x(t_0) = x_0$$

where $f = (f_1, \dots, f_n)$, $x = (x_1, \dots, x_n)$, $x_0 = (x_{01}, \dots, x_{0n})$. The contribution is devoted to using Lyapunov functions in nonuniqueness theorems.

Reviewer: [Zuzana Došlá \(Brno\)](#)**MSC:****34A12** Initial value problems, existence, uniqueness, continuous dependence and continuation of solutions to ordinary differential equations**34A34** Nonlinear ordinary differential equations and systems**Keywords:**

initial value problem; uniqueness and nonuniqueness of solutions; Lyapunov functions

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