

Finitude of Limit Cycles of Linear Piecewise ODEs in the Cylinder

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Abstract

Let $x' = S(t, x)$ be a differential equation in the cylinder, linear piecewise in x and with trigonometric coefficients in t . In this talk, we provide an upper bound on the number of limit cycles in terms of the number of zones of the piecewise equation and the degree of the coefficients, that is, an analog of Hilbert's 16th problem in this context.