

A STUDY OF A RAYLEIGH SYSTEM

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Abstract

In this paper we make a study of a Rayleigh system without periodic orbits in a domain on the plane. We use a Gasull's result and Dulac's criterion that give sufficient conditions for the non-existence of periodic orbits of dynamical systems in simply connected regions of the plane.

Key Words : *Dulac functions, Quasilinear partial differential equations, Bendixon–Dulac criterion.*

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