

A STUDY OF A GENERALIZED LIÉNARD SYSTEM

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Abstract

In this paper, we make a study of a generalized Liénard 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.

Keywords and phrases: Dulac functions, quasilinear partial differential equations, Bendixson-Dulac criterion.

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