CREATIVE MATH. & INF.
23 (2014), No. 2, 215 - 221

Online version available at http://creative-mathematics.ubm.ro/
Print Edition: ISSN 1584 - 286X Online Edition: ISSN 1843 - 441X

Existence and behaviour of parameter classes of solutions of a system of quasilinear differential equations

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ABSTRACT.

The paper presents some results on the existence and behaviour of parameter classes of solutions for system of quasilinear differential equations. Behaviour of integral curves in neighborhood of an arbitrary or a certain curve is considered. The obtained results contain the answer to the question on stability as well as approximation of solutions whose existence is established. The errors of the approximation are defined by the functions that can be sufficiently small. To obtain our main results, the theory of qualitative analysis of differential equations and topological retraction method are used.

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Received: 04.02.2014; In revised form: 20.10.2014; Accepted: 25.10.2014
2010 *Mathematics Subject Classification.* 34C05, 34A26.
Key words and phrases. *Quasilinear differential equation, parameter classes of solutions, behavior of solutions.*