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Abstracts of Short Communications and Posters

Section:

9. Ordinary Differential Equations and Dynamical Systems

1991 MS Classification: 58Fxx

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On the convexity of the action of a Lagrangian

Let M be a smooth compact manifold, and let L be a Lagrangian on M, i. e. a function on TM which is convex and superlinear in the fibers. We study the convexity of Mather's α-function on $H^1(M,\mathbb{R})$ in terms of the relative Čhech homology of a special set of minimising trajectories, called Peierls set after A. Fathi.