



Periodic solutions of o.d.e. systems with a lipchitz non linearity

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In this report, we address differential systems with Lipschitz non linearities; this study is motivated by the subject of vibrations of structures with unilateral springs or non linear stress-strain law close to the linear case. We consider existence and solution with fixed point methods; this method is constructive and provides a numerical algorithm which is under study. We describe the method for a static case example and we address periodic solutions of differential systems arising in the vibration of structures.

Subjects: **Dynamical Systems (math.DS)**; Classical Physics (physics.class-ph)

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