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LOCAL EXISTENCE OF SOLUTIONS TO A CLASS OF NONCONVEX SECOND ORDER DIFFERENTIAL INCLUSIONS

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Abstract. We prove the local existence of solutions to the Cauchy problem $x'' \in F(x, x') + f(t, x, x')$, $x(0) = x_0, x'(0) = y_0$, where F is a set-valued map contained in the Fréchet subdifferential of a ϕ-convex function of order two and f is a Carathéodory single valued map.

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