Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis 20 (2013) 65-82 Copyright ©2013 Watam Press

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## SMOOTHNESS PROPERTY ON PARAMETERS OF SOLUTIONS OF CAUCHY PROBLEMS WITH NON-DENSELY DEFINED OPERATORS

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**Abstract.** This work investigates the differentiability with respect to parameters of the classical solutions of abstract Cauchy problems, and studies the case that the operators of the equations are not densely defined by employing the theory of integrated semigroup.

**Keywords.** abstract Cauchy problem, integrated Semigroup, differentiability, parameter, classical solution

AMS (MOS) subject classification: 47D62, 34A30.

Dynam. Cont. Dis. Ser. A, vol. 20, no. 1, pp. 65-82, 2013.

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Received September 2012; revised December 2012.

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