



Ann. Funct. Anal. 5 (2014), no. 2, 61–73

ANNALS OF FUNCTIONAL ANALYSIS

ISSN: 2008-8752 (electronic)

URL: www.emis.de/journals/AFA/

TIME SCALES HARDY–TYPE INEQUALITIES VIA SUPERQUADRACITY

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This paper is dedicated to Professor Tsuyoshi Ando in celebration of his distinguished achievements in Matrix Analysis and Operator Theory

Communicated by V. Valov

ABSTRACT. In this paper some new Hardy–type inequalities on time scales are derived and proved using the concept of superquadratic functions. Also, we extend Hardy–type inequalities involving superquadratic functions with general kernels to the case with arbitrary time scales. Several consequences of our results are given and their connection with recent results in the literature are pointed out and discussed.

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Date: Received: October 28, 2013; Accepted: November 2, 2013.

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2010 *Mathematics Subject Classification.* Primary 46G12; Secondary 47B34; 47J20.

Key words and phrases. Time scales, Hardy–type inequalities, superquadratic functions, subquadratic function, Hardy–Knopp type inequalities.