

## SOME NEW PACHPATTE TYPE INEQUALITIES ON TIME SCALES AND THEIR APPLICATIONS

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*Abstract.* The aim of this paper is to establish some new Pachpatte type inequalities on time scales, which provide explicit bounds on unknown functions. Our results extend some known Pachpatte inequalities on times scales, unify and extend some continuous inequalities and their corresponding discrete analogues. The inequalities given here can be used as tools in the qualitative theory of certain differential equations and dynamic equations. Some examples are given in the end of this paper.

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