



A Comparison in the Theory of Calculus of Variations on Time Scales with an Application to the Ramsey Model

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Abstract: The purpose of this paper is to provide a comparison between the existing results on the calculus of variations with the Δ and ∇ operators on time scales. We will also prove the theorems pertaining to free boundary conditions, for dynamic models missing one or both end points conditions. To illustrate our results we shall use a well known Ramsey model and an adjustment model in economics.

Keywords: *time scales; calculus of variations; nabla derivative; delta derivative; dynamic model.*

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