

Calculus of variations on time scales: some economics applications

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The time scale calculus theory can be applicable to any field in which dynamic processes are described by discrete or continuous models. On the other hand, many economic models are dynamic models. Therefore it is natural to relate those two subjects. This work is intended to motivate the use of the calculus of variations and optimal control problems on time scales in the study of economic models. The paper present a detailed exposition of a “cake-eating” problem and a model of household consumption.