

Title: The Variational Calculus on Time Scales: a survey

Speaker: Delfim F. M. Torres

Affiliation: University of Aveiro, Portugal

Abstract:

The theory of time scales is a relatively new area of Mathematics with applications in population biology, quantum calculus, intelligent robotic control, adaptive sampling, economics, and optimization, among others. It was initiated by Stefan Hilger in the nineties of the XX century as a tool to unify and generalize differential and difference equations. The new calculus on time scales is now subject of strong current research in many different fields in which dynamic processes can be described with continuous or discrete models. In this talk we will make a survey of the recent results of the calculus of variations on time scales.