

First Joint Meeting Brazil Italy of Mathematics  
Special Session: Topological and impulsive methods for  
the qualitative analysis of differential equations,  
differential inclusions and difference equations

Rio de Janeiro, August 29 - September 02, 2016

**Title:** Periodic averaging principle in quantum calculus

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**Abstract:** The theory of averaging plays an important role for applications, since it can be used to study perturbation theory, control theory, stability of solutions, bifurcation, among others. In this work, we prove a periodic averaging principle for q-difference equations and present some examples to illustrate our result. This is a joint work with M. Bohner.