

1145-VM-105 **J. Diego Ramirez*** (ramirezd@savannahstate.edu), 3219 College St., Department of Mathematics, Savannah, GA 31404. *Existence of minimal and maximal solutions for Caputo fractional differential equations with bounded delay.*

In this presentation we consider a fractional differential with bounded delay with Caputo derivative of order q , $0 < q < 1$. After defining different sets of coupled lower and upper solutions we prove that there exist two sequences of iterates that converge uniformly and monotonically to minimal and maximal solutions of the problem. Furthermore, we state conditions that guarantee that both sequences converge to a unique solution. (Received July 30, 2018)