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J. Diego Ramirez* (dramzv@gmail.com), P.O. Box 43671, Lafayette, LA 70504, and **Aghalaya S. Vatsala**. *Existence of coupled minimal and maximal solutions of Fractional Periodic Boundary Value Problem via Initial Value Problem*. Preliminary report.

In this paper we develop monotone method for Caputo fractional differential equations of order q , $0 < q < 1$, with periodic boundary conditions. Our approach uses the corresponding initial value problem to develop natural monotone sequences or intertwined monotone sequences which converge monotonically and uniformly to coupled minimal and maximal periodic solutions. (Received September 14, 2010)