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Yunxiang Bai* (c00257292@louisiana.edu), 217 Maxim Doucet Hall, P.O. Box 43568, Lafayette, LA 70504, and **Aghalaya Vatsala**. *Generalized Monotone Method for Nonlinear Caputo Fractional Impulsive Differential Equations*. Preliminary report.

Generalized monotone method is a useful technique to prove the existence of coupled minimal and maximal solutions when the nonlinear function is the sum of an increasing and decreasing functions. In this work, we develop generalized monotone method for Caputo fractional impulsive differential equations with initial conditions, using coupled lower and upper solutions of Type 1. For that purpose we develop comparison results for Caputo fractional impulsive differential equation. Further, under uniqueness assumption, we prove that the existence of the unique solution of the nonlinear Caputo fractional impulsive differential equation with initial conditions. (Received September 11, 2019)