Donna Sue Stutson* (dstutson@xula.edu), Xavier University of Louisiana, Mathematics Department, 1 Drexel Dr., New Orleans, LA 70125. Some Results for Partial Fractional Differential Inequalities.

In this talk, we will consider partial fractional differential inequalities of parabolic type using the Caputo ordinary derivative in t of order q, where 0 < q < 1. We will recall a known comparison theorem for a Rieman-Liouville fractional differential inequality where the fractional derivative is if order q and 0 < q < 1. Furthermore, we will develop a similar comparison theorem for partial fractional equations of parabolic type using the Caputo ordinary derivatives. (Received September 22, 2010)