1086-39-2881 Christopher S. Goodrich* (cgood@prep.creighton.edu), Creighton Preparatory School, 7400 Western Avenue, Omaha, NE 68114. On a First-Order Semipositone Discrete Fractional Boundary Value Problem.

In this presentation we discuss the existence of at least one positive solution to a discrete fractional semipositone boundary value problem. Since the boundary condition we consider is potentially both nonlinear and nonlocal, the problem we study is possibly very general. In addition, we shall especially focus on the construction of the Green's function for this problem. Finally, as part of this presentation we shall discuss some recent developments in the discrete fractional calculus and highlight the differences and similarities between the integer-order and fractional-order settings. (Received September 25, 2012)