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Abigail M Brackins* (s-abracki1@math.unl.edu), University of Nebraska-Lincoln, Mathematics Department, Avery Hall 203, Lincoln, NE 68588-0130. Green's Functions for Fractional Self-Adjoint Nabla Boundary Value Problems.

In this talk, we consider the fractional self-adjoint nabla difference equation $-\nabla_a^{\nu}(p\nabla y)(t) = h(t)$. We derive the Green's function for the related boundary value problem with homogeneous boundary conditions and discuss some of its properties. We then find the Green's function for the boundary value problem with general boundary conditions. We conclude by examining the difference between the nabla and delta cases. These results will be useful to establish existence and uniqueness of positive solutions to fractional self-adjoint boundary value problems. (Received February 06, 2014)