

1163-39-319

**Min Wang\*** (mwang23@kennesaw.edu). *A second order discrete boundary value problem with mixed periodic boundary conditions.*

In this talk, we study the sufficient conditions on the existence of solutions of a second order discrete boundary value problem with mixed periodic boundary conditions by the critical point theory. A particular Banach space and an associated functional are presented to handle the asymmetry due to the mixed periodic boundary conditions. Examples are given to illustrate the applications of the results as well. (Received September 02, 2020)