1051-34-16   **Jeffrey W Lyons*** (`Jeff_Lyons@baylor.edu`), 1226 James Ave Apt 210, Waco, TX 76706. *Boundary Data Smoothness for Solutions of Nonlocal Boundary Value Problems for Second Order Difference Equations.*

Under certain conditions, derivatives and differences, with respect to boundary data and parameters, are studied for solutions of the discrete nonlocal boundary value problem, $w(m+2) = f(m, w(m), w(m+1)), w(m_1) = w_1$ and $w(m_2) - \sum_{i=1}^{r} \alpha_i w(\eta_i) = w_2$, where $m_1 < m_1 + 1 < \eta_1 < \eta_1 + 1 < \eta_2 < \eta_2 + 1 < \cdots < \eta_r < \eta_r + 1 < m_2$ in $\mathbb{Z}$ and $\alpha_1, \alpha_2, \ldots, \alpha_r \in \mathbb{R}$. (Received June 10, 2009)