1067-34-437 **Xueyan Sherry Liu*** (xueyan_liu@baylor.edu), Department of Mathematics, Baylor University, One Bear Place #97328, Waco, TX 76798-7328. *Nonlocal boundary value problems for nth order differential equations by solution matching.*

For the nth order differential equations $y^{(n)} = f(x, y, y', \cdots, y^{(n-1)})$, solutions satisfying nonlocal boundary conditions on $[a, b]$ are matched with solutions satisfying nonlocal boundary conditions on $[b, c]$ to obtain a unique solution satisfying nonlocal boundary conditions on $[a, c]$. Monotonicity conditions on f play a fundamental role in the matching. (Received September 03, 2010)