1021-35-227 **James R. Ward*** (`jrw87@math.uab.edu`), Department of Mathematics, The University of Alabama at Birmingham, Birmingham, AL 35294. *Bifurcation and Multiple Solutions to Boundary Value Problems.* Preliminary report.

Conley index and Leray-Schauder degree methods will be combined to study families of bifurcating solutions to nonlinear elliptic boundary value problems. The methods may be applied to globally extend solution sets from bifurcation points of even or odd multiplicity, but depend upon the structure of the nonlinear terms. (Received September 06, 2006)