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M. N. Nkashama* (nkashama@math.uab.edu), Department of Mathematics, University of Alabama at Birmingham, Birmingham, AL 35294-1170, and **N. Mavinga** (mavinga@swarthmore.edu), Department of Mathematics and Statistics, Swarthmore College, Swarthmore, PA 19081. *Bifurcation from infinity and multiplicity of solutions for nonlinear diffusion equations with nonlinear boundary conditions.* Preliminary report.

We shall present bifurcation from infinity and multiplicity results for solutions of nonlinear second order elliptic partial differential equations with nonlinear boundary conditions with weights, including the so-called Steklov type problems. Oscillatory behavior of the bifurcation branches will also be discussed. The proofs are based on degree theory arguments, continuation methods and bifurcation from infinity techniques with the use of some recent results in geometric analysis. (Received February 18, 2018)