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N. Mavinga (mavinga@swarthmore.edu), Department of Mathematics & Statistics, Swarthmore College, Swarthmore, PA 19081-1390, and **M. N. Nkashama*** (nkashama@uab.edu), Department of Mathematics, University of Alabama at Birmingham, Birmingham, AL 35294-1170.

Eigenvalue-curves and nonlinear boundary conditions for nonlinear elliptic equations.

We show the existence of eigenvalue-curves connecting the Steklov spectrum to the Neumann-Robin spectrum for linear second order elliptic equations. We then consider nonlinear problems with nonlinear boundary conditions when the nonlinearities stay in some sense between two consecutive eigenvalue-curves. (Received September 21, 2011)