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N. Mavinga* (mavinga@swarthmore.edu), Department of Mathematics and Statistics, Swarthmore College, Swarthmore, PA 19081, and **M. N. Nkashama** and **S. Robinson**. *Steklov-Fucik Spectrum and Nonlinear Elliptic Equations with Nonlinear Boundary Conditions*. Preliminary report.

We consider the (generalized) Steklov-Fucik spectrum for the Laplacian with a nonlinear flux boundary condition and prove the existence of solutions for nonlinear elliptic equations with nonlinear boundary conditions when both nonlinearities in the differential equation and on the boundary lie asymptotically between the first generalized Steklov-Robin eigenvalue-pair and one point on the first nontrivial curve of the generalized Steklov-Fucik spectrum in the plane. (Received September 22, 2011)