

**EXISTENCE OF SOLUTIONS TO QUASI-LINEAR ELLIPTIC  
PROBLEMS WITH GENERALIZED ROBIN BOUNDARY  
CONDITIONS**

MAHAMADI WARMA

ABSTRACT. We characterize the  $L^q$ -solvability of a class of quasi-linear elliptic equations involving the  $p$ -Laplace operator with generalized nonlinear Robin type boundary conditions on bad domains. Some uniqueness results are also given.

M. WARMA, UNIVERSITY OF PUERTO RICO, DEPARTMENT OF MATHEMATICS (RIO PIEDRAS CAMPUS), PO BOX 23355, SAN JUAN, PR 00931-3355, USA

*E-mail address:* [warma@uprrp.edu](mailto:warma@uprrp.edu), [mjwarma@gmail.com](mailto:mjwarma@gmail.com)