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Maria Cristina Mariani* (mmariani@nmsu.edu), P.O. Box 30001, Department 3MB, Las Cruces, NM 88003-8001. *Elliptic Equations with Nonlinear Boundary Conditions.*

The elliptic equation $\Delta u = f(x, u)$ with nonlinear boundary conditions is studied in a bounded domain $\Omega \subset R^n$. Various existence results are obtained applying coincidence degree theory and the method of upper and lower solutions. Possible extensions will be mentioned. (Received November 01, 2005)