1116-35-1811 **Alfonso Castro*** (castro@g.hmc.edu), Mathematics, Harvey Mudd College, Claremont, CA 91711, and **Rosa Pardo**. *A priori estimates for positive solutions to second order elliptic boundary problems.* Preliminary report.

A priori estimates for positive solutions to second order semilinear elliptic boundary value problems make hypotheses on the geometry of region under consideration and the nonlinearity, f. The use of moving plane arguments allows for the convexity of the region to replace some assumptions on $f(s)/s^{(N+2)/(N-2)}$. We will show that for regions with *convex-starlike* boundaries such assumptions may be eliminated. Examples of regions with convex-starlike boundary are *ring-like* regions, that is regions of the form $\Omega = \Omega_1 - \Omega_2$, with Ω_1 convex, Ω_2 starlike, and $\bar{\Omega}_2 \subset \Omega_1$. (Received September 21, 2015)