

# Existence of positive solutions of a class of semilinear elliptic systems

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## Abstract

**Abstract:** By a compactness argument, it was shown that, the *boundary regularity* theorems of Schoen-Uhlenbeck [A regularity theory for harmonic maps. *J. Differential Geom.* 17 (1982), no. 2, 307–335] and Jost-Meier [Boundary regularity for minima of certain quadratic functionals. *Math. Ann.* 262 (1983), no. 4, 549–561] are uniform in the domains, boundary data, and the energy. The resulting estimates can be used to obtain higher order regularity.

**Key Words:** *elliptic system of quadratic growth, compactness argument, convergence of domains.*