

On a class of asymptotically linear systems

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We will consider a class of asymptotically linear elliptic system with zero Dirichlet boundary conditons. We will discuss the existence of unbounded connected components of the solution set and discuss the nodal properties of solutions on these components. As a consequence, we infer the existence and multiplicity of solutions in a neighborhood of the bifurcation parameter containing the simple eigenvalue of the associated eigenvalue problem.