

Nodal solutions for a class of coupled elliptic equations

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We report results on the existence of nodal solutions for a class of coupled nonlinear elliptic equations, in particular on multiplicity results of radial nodal solutions that share prescribed nodal data in the repulsive regime. The methods are minimax constructions in the presence of invariant sets of the associated gradient or heat flows. The results show a rich structure of nodal solutions for these equations.