Michael E Filippakis* (mfilip@unipi.gr), University of Piraeus Research Center, 122 Grigoriou Labraki str. GR-18532 Piraeus, Greece, 18532 Piraeus, Greece. Nodal solutions for indefinite Robin problems

We consider a semilinear Robin problem driven by the negative Laplacian plus an indefinite, unbounded potential. The reaction term is a Caratheodory function of arbitrary structure outside an interval $[-c, c]$ ($c > 0$), odd on $[-c, c]$ and concave near zero. Using a variant of the symmetric mountain pass theorem, together with truncation, perturbation and comparison techniques, we show that the problem has a whole sequence $\{u_n\}_{n \geq 1}$ of distinct nodal solutions converging to zero in $C^1(\Omega)$.

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