

ON A SPLITTING OF THE NEHARI MANIFOLD VIA THE GENERALIZED RAYLEIGH QUOTIENTS

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In this talk, we deal with equations of variational form of which Nehari manifolds may contain more than two different types of critical points. To split critical points on the Nehari manifold, a method based on the recursive use of nonlinear generalized Rayleigh quotients is proposed. This method is applied to get a ground state, as well as the multiplicity result to the nonlinear elliptic boundary problems with the polynomial type of nonlinearity

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