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**A NOTE ON THE GALERKIN AND THE EIGENVALUE
EXPANSION METHODS**

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The Galerkin and the Eigenvalue Expansion methods are often confused with each other. Both methods can be used to prove existence of solutions to partial differential equations theoretically. Both of them can be used in numerical approximations of solutions as well. For nonlinear problems however there are important differences between the two methods both in theory and in simulations. We point out the differences and the similarities between the two methods through an example.

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