عنوان مقاله:

Using homotopy analysis method to find the eigenvalues of higher order fractional Sturm–Liouville problems

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خلاصه مقاله:

We utilize the homotopy analysis method to find eigenvalues of fractional Sturm–Liouville problems. Inasmuch as very few papers have been devoted to estimating eigenvalues of these kind of problems, this work enjoys a particular significance in many different branches of science. The convergence of the homotopy analysis method is also considered on the high order fractional Sturm–Liouville problem. The numerical results acknowledge the ability of the proposed method. Eigenvalues are computed within a couple of minutesCPU time at core i3, 2.7 GHz PC.

کلمات کلیدی:

Homotopy analysis method,, Eigenvalues,, Fractional Sturm– Liouville problems

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