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A weighted algorithm based on the homotopy analysis method: application to inverse heat conduction problems. (English) Zbl 1222.65105

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Summary: A weighted algorithm based on the homotopy analysis method (HAM), for solving inverse heat conduction problems, is introduced. Using the HAM, it is possible to find the exact solution or an approximate solution of the problem in the form of a series.

MSC:

65M32 Numerical methods for inverse problems for initial value and initial-boundary value problems involving PDEs

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Keywords:

inverse problems; heat conduction problems; homotopy analysis method; series solution

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