

Review of: "Taylor Series Based Domain Collocation Meshless Method for Problems with Multiple Boundary Conditions including Point Boundary Conditions"

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Potential competing interests: No potential competing interests to declare.

In the manuscript "Taylor Series Based Domain Collocation Meshless Method for Problems with Multiple Boundary Conditions including Point Boundary Conditions" the authors have proposed a Taylor series based domain collocation PDE solution methodology is proposed. The proposed methodology is well suited to handle multiple boundary conditions including point boundary conditions. The main idea of the method is to formulate a function which satisfies all the boundary conditions and then generalize the function to a family of functions by using Taylor series. Since the family of functions already satisfies the boundary conditions, the PDE solution can be determined by finding the values of unknown Taylor coefficients for which the residual of the PDE over the domain is closest to zero. I recommend for the following changes

1`. The abstract is very big. reduce the same.

2. Add the gap and motivation of the work.

3. This types of work is discussed by many authors, what is different in the work.

4. The following works are related to the proposed work in meshfree sense, these should be added in the revised manuscript

(a) Local RBF-FD-Based Mesh-free Scheme for Singularly Perturbed Convection-Diffusion-Reaction Models with Variable Coefficients, Journal of Mathematics, (2022), Article ID 3119482, doi.org/10.1155/2022/3119482

(b) Radial basis functions based meshfree schemes for the simulation of non-linear extended Fisher-Kolmogorov model, Wave Motion, (2022)102863

(c) A meshfree algorithm for simulation of multidimensional Schrödinger equations, Computational and Applied Mathematics, (2020) doi.org/10.1007/s40314-020-1113-0

(d) Meshfree algorithms based on radial basis functions for numerical simulation and to capture shocks behavior of Burgers' types problems, Engineering Computations, 36(4) (2019) 1142-1168.

(e) Local radial basis functions and scale-3 Haar wavelets operational matrices based numerical algorithms for generalized regularized long wave model, Wave Motion, 109, 102846, 2022

5. The problems are very good.

6. Modify the conclusion part by adding the main contribution.