

Algorithms Utilizing Wavelet to Solve Various Partial Differential Equations

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Abstract : The article traces developments and evolution of various algorithms developed for solving partial differential equations using the significant combination of wavelet with few already explored solution procedures. The approach depicts a study over a decade of traces and remarks on the modifications in implementing multi-resolution of wavelet, finite difference approach, finite element method and finite volume in dealing with a variety of partial differential equations in the areas like plasma physics, astrophysics, shallow water models, modified Burger equations used in optical fibers, biology, fluid dynamics, chemical kinetics etc.

Keywords : multi-resolution, Haar Wavelet, partial differential equation, numerical methods

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