

NUMERICAL SOLUTION FOR PARTIAL DIFFERENTIAL EQUATIONS IN ENGINEERING AND SCIENCE

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ABSTRACT

The paper incorporates the essential elements of the numerical methods currently used extensively in the solution of all three types of partial differential equations encountered regularly in science and engineering. It deals mainly with an alternative derivation of difference equations approximating PDEs.

REFERENCES

1. **Popescu, F., Andrei, V., Arition., V.**, *Metode numerice aplicate în inginerie*, Ed. Universitatii Dunarea de Jos din Galati (uz intern), 1994.
2. **Ames, W. F.**, *Numerical Methods for Partial Differential Equations*, *Barnes and Noble*, New York, 1969.
3. **Brandt, A.**, Multi-Level Adaptive Solutions to Boundary-Value Problems, *Mathematics of Computation*, Vol. 31, No. 138, 1977.
4. **Dennis, J. E.** and **Schnabel**, *Numerical Methods for Unconstrained Optimisation and Non-linear Equations*, *Prentice-Hall, Englewood Cliffs, New Jersey*, 1983.