

## Iterative solution of nonlinear equations in several variables

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### Abstrak

Iterative Solution of Nonlinear Equations in Several Variables provides a survey of the theoretical results on systems of nonlinear equations in finite dimension and the major iterative methods for their computational solution. Originally published in 1970, it offers a research-level presentation of the principal results known at that time.

Although the field has developed since the book originally appeared, it remains a major background reference for the literature before 1970. In particular, Part II contains the only relatively complete introduction to the existence theory for finite-dimensional nonlinear equations from the viewpoint of computational mathematics. Over the years semilocal convergence results have been obtained for various methods, especially with an emphasis on error bounds for the iterates. The results and proof techniques introduced here still represent a solid basis for this topic.