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.pth-order numerical methods for solving systems of nonlinear equations. (English. Russian original) [Zbl 1301.65038]  

From the text: Extensive literature is available that addresses numerical methods for solving systems of nonlinear equations. The most popular technique in these publications is Newton’s method, which is quadratically convergent. In his 1838 paper, P. L. Chebyshev proposed a method converging at a higher rate. In recent years, methods possessing a superquadratic convergence have been studied in the literature.

In this work, we propose methods with a \( p \)th-order convergence rate with respect to both the functional and the argument.

MSC:  
65H10 Numerical computation of solutions to systems of equations  

Keywords:  
Chebyshev method; Newton’s method; convergence rate; system of \( n \) nonlinear equations

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References:  

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