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RESULTS ON CONTROLLING THE RESIDUALS OF PERTURBED NEWTON-LIKE METHODS ON BANACH SPACES WITH A CONVERGENCE STRUCTURE

Ioannis K. Argyros

Abstract. In this study, we provide sufficient conditions for controlling the residuals of perturbed Newton-like methods, in such a way that the convergence of such methods is ensured. In order to achieve this, we apply a theorem due to Kantorovich on a setting of a regular space with a convergence structure.

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Department of Mathematics, Cameron University, Lawton, OK 73505, U.S.A.
E-mail Address: ioannisa@cua.cameron.edu
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