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ON THE CONVERGENCE OF NEWTON'S METHOD FOR ANALYTIC OPERATORS

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Abstract. We approximate a solution of an operator equation using Newton's method. The new local and semilocal convergence theorems are based on the analyticity of the operator involved.

A.M.S. (MOS) Subject Classification Codes. 65B05, 65N30, 47H17, 49M15.

Key Words and Phrases. Newton's method, Banach space, analytic operator, majorizing sequence, Banach lemma on invertible operators.

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