

Dedicated to Professor Iulian Coroian on his 60th anniversary.

On the efficiency of the computations for approximating the solutions of equations

Ion Păvăloiu

1 Introduction

It is well known that the Lagrange-Hermite type inverse interpolation offers a lot of iterative methods for solving equations. The preference for one method or for another in obtaining a suitable approximation of a solution must take into account, among other facts, not only the convergence order of the chosen method, but also the amount of calculations needed at each iteration step. While the convergence order may be determined exactly, the amount of calculations from each iteration may be difficult to determine exactly.