

A Fast Chebyshev's Method for Quadratic Equations

A Multiresolution transform corresponding to interpolatory technique is used for fast application of Chebyshev's method. In designing this algorithm we apply data compression to the linear and the bilinear forms that appear on the method. A convergence theorem is performed. Finally, some numerical results are presented.

Key Words. Multiresolution, compression, nonlinear equations, Chebyshev's method.

AMS(MOS) subject classifications. 42C10, 47H17, 65J15, 65T99