A Construction of Attracting Periodic Orbits for some Classical Third Order Iterative Methods

In this paper, we shall use a family of iterative methods to find roots to non–linear equations and present a procedure to construct polynomials in such a way that superattracting periodic orbits of any prescribed period will occur when these iterative methods are applied. This family includes Chebyshev's, Halley's, super–Halley and c–methods as particular cases.

Key Words. Iterative methods, dynamics, rational maps, attracting periodic orbits.

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