

# On the Dynamics of a Family of Third–Order Iterative Functions Use to Solve Non–linear Equations

The dynamics of a family of third order iterative methods which are used to find roots of non–linear equations applied to complex polynomials of degrees three and four is studied. The conjugacy classes of these methods are found explicitly.

**Key Words.** Iterative methods, dynamics, rational maps, conjugacy classes.

**AMS(MOS) subject classifications.** 37N30, 65F10, 30C15.