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Lawrence J. Crone* (lcrone@centurylink.net), 463 Walters Hollow Road, Alum Bank, PA 15521. *Convergence to Fixed Cycles and the Inverse Schroder Function.*

Let f be a quadratic rational function with a repelling fixed point at the origin, and let G be the inverse of the classical Schroder function. Color graphs of G reflect the presence of attractive fixed points and cycles of f in various ways. I suspect that these graphs hold information which may be of interest to those who study iterations of quadratic rational functions. For example: if f has an attracting cycle of order n , there are connected domains in the complex plane where the values of G lie in the basin of convergence of f^n corresponding to the points in the n -cycle. Sometimes these domains are all bounded sets, and sometimes there are unbounded sets among them. Some f have attracting cycles of both sorts. I do not know whether this behavior of G reflects significant differences in the way points converge under iteration of f to the fixed cycles of f . I will show several examples, and demonstrate the program I use to explore them. This program is available as a free download. (Received August 04, 2014)