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Generating the basins of attraction for Newton's method

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ABSTRACT.

There are many ways to view the basins of attraction for Newton's method for complex polynomials. In the paper a program to perform this task is presented. It determines if the Newton's method is converging from any point in a rectangular domain in $\mathbb{R} \times \mathbb{R}$, and computes the number of iterations necessary to attempt a root. The colors/number of iterations/roots and colors/roots diagrams are generated.

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