

1145-AD-436 **Jasmine Powell***, jtpowell@umich.edu. *Fungal fractals from post-critically finite polynomials.*

Complex quadratic polynomials give rise to all sorts of beautiful mathematical pictures, the most well-known, perhaps, being the Mandelbrot set. We work in this same framework, focusing specifically on the post-critically finite quadratic polynomials – that is, those whose unique critical point has finite forward orbit under the map. If you were to take all such polynomials and plot every point in their critical orbits on the same plane, what sort of a picture would arise? What sort of properties would it have? We investigate these questions while admiring the intricate fractal-like images that appear when studying the iteration of complex functions. (Received September 06, 2018)