1135-37-3055 **Eric Chang*** (changer@bu.edu). *The Sierpinski Mandelbrot Spiral.*

We identify three new structures that lie in the parameter plane of family of maps $F(z) = z^n + \lambda/z^d$, where z and λ are complex, $n \geq 4$ is even and $d \geq 3$ is odd. There exists in the parameter plane a "Sierpindelbrot arc" of infinitely many alternating Mandelbrot sets and Sierpinski holes. In fact, there are two types of SM arcs, and there are infinitely many of each in the parameter plane. One can picture λ in the parameter plane moving along infinitely many arcs of one type and passing through a single arc of the other type in a spiraling fashion, comprising the third structure, a "Sierpinski Mandelbrot spiral." Furthermore, there are infinitely many of each type of arc, so there are infinitely many SM spirals in the parameter plane as well. (Received September 26, 2017)