Abstract: The zeros of the independent set polynomial of bounded degree graphs are strongly connected to the computational complexity of approximating the independent set polynomial. Given a finite degree bound, it seems very difficult to get an accurate description of the closure of the zeros in the complex plane. However, if we let the degree bound go to infinity while appropriately rescaling the parameter, we can give an explicit description of the limit set of the zeros in terms of an interesting dynamical system. By analysing this dynamical system we can prove topological properties of this limit set and make accurate computer pictures of it. This talk is based on joint work with Ferenc Bencs and Han Peters.