

1077-11-2165

Nathan L Walters* (walters.nathan.1@gmail.com). *Extending the Polya-Carlson Theorem:
When Uniform Limits of Rational Functions are Rational.*

The original Polya-Carlson theorem is an early result in the theory of capacity, giving a condition on a power series with integer coefficients which is sufficient to show that it is the Taylor expansion of a rational function. This talk will address a generalization of the theorem to algebraic curves, as well as allowing more general coefficients in the power series. In the course of the exposition, we will draw from such areas of math as capacity theory on curves, local fields and adèles, the product formula, covering spaces, and dual bases. (Received September 21, 2011)