GEORGE GRELL, University of Rochester

Galois Groups of Iterated Quadratic Rational Maps whose Critical Orbits Collide

In 2013, Pink studied properties of an inverse limit of Galois groups of iterated quadratic rational maps with infinite postcritical orbits whose critical points eventually meet. We use the theory of ramification groups to give an explicit representation of the Galois groups after an arbitrary number of iterations. In certain cases we are able to use this to give an expression for the fixed point proportion of the standard group action on a binary rooted tree. We are also able to extend the main result to cubic polynomials with similar properties.