

1139-11-515

**Thomas J Tucker\*** (tjtucker@gmail.com), Math Dept, University of Rochester, Rochester, NY 14627, and **Wayne Peng**, Math Dept, University of Rochester, Rochester, NY 14627. *When can two arboreal representations be isomorphic?*

Let  $K$  be a number field. Let  $f$  and  $g$  be polynomials of degree greater than one over  $K$ , let  $a$  and  $b$  two elements of  $K$ , and let  $T_f(a)$  and  $T_g(b)$  be the rooted tree of inverse images of  $a$  and  $b$  under iteration of  $f$  and  $g$ . We present a conjecture on when  $T_f(a)$  and  $T_g(b)$  can be Galois isomorphic. This may be seen as an a dynamical analog of the Tate isogeny theorem. (Received February 19, 2018)