

1116-11-1668

Spencer Hamblen* (shamblen@mcdaniel.edu) and **Rafe Jones**. *Deeply Ramified Iterated Extensions*.

We address a question of Aitken, Hajir, and Maire about whether number fields generated by iterates of a polynomial of degree d must ramify deeply at places dividing d . This is in some sense a dynamical analogue of the Fontaine-Mazur conjecture. We study the higher ramification groups of such extensions using a Newton polygon method of Lubin; this method allows us to show that for certain integers c , the splitting field of all iterates of $x^2 + c$ is deeply ramified at 2. (Received September 21, 2015)