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Robert L Benedetto, Dragos Ghioca, Jamie Juul* (jjuul@math.ubc.ca) and **Thomas J Tucker**. *Arboreal Galois representations of PCF quadratic polynomials*. Preliminary report.

Let K be a number field and $f(x) \in K[x]$ be a quadratic post-critically finite polynomial. We study the Galois groups $\text{Gal}(K(f^{-n}(t))/K(t))$. The case t is transcendental over K was studied in previous unpublished work of Pink; we give new proofs of his results. We also examine the case $t \in K$. This is joint work with Rob Benedetto, Dragos Ghioca, and Tom Tucker. (Received September 16, 2019)