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*Isolation of postcritically finite parameters in  $p$ -adic dynamical moduli spaces.*

Fix a prime number  $p$ , and let  $f_c(z) = f(c, z) \in \mathbb{C}_p[[c]](z)$  be a one-parameter analytic family of rational functions of degree  $d \geq 2$ , for  $c$  in some open disk  $D$ . Suppose that all  $2d - 2$  critical points of  $f_c$  are also analytic functions of  $c$ . A parameter  $c$  is postcritically finite, or PCF, if all of the critical points of  $f_c$  have finite forward orbit under the iteration of  $f_c$ . Under mild conditions, including that all critical points lie in the Fatou set, we show that any proper subdisk of  $D$  contains only finitely many PCF parameters, even though  $D$  itself may contain infinitely many. In particular, all PCF parameters of  $f_c(z) = z^d + c$  are isolated in  $p$ -adic dynamical moduli space. (Received August 24, 2019)