

1106-37-2345

Kenneth Scott Jacobs*, 1023 D. W. Brooks Drive, Department of Mathematics, UGA, Athens, GA 30605. *An Equidistribution Result in Non-Archimedean Dynamics.*

Let K be a complete, algebraically closed, non-Archimedean valued field, and let $\phi \in K(z)$ with $\deg(\phi) \geq 2$. In two recent articles, R. Rumely introduced the function $\text{ordRes}_\phi(x)$ on the Berkovich line and a canonical probability measure ν_ϕ (the crucial measure) supported on the interior of the Berkovich line. What can be said of the convergence of the corresponding objects attached to the iterates of ϕ ? We answer this question by showing that, suitably normalized, the functions $\text{ordRes}_{\phi^n}(x)$ converge to the diagonal values of the Arakelov-Green's function $g_\phi(x, x)$, and that the measures ν_{ϕ^n} equidistribute to the invariant measure μ_ϕ . (Received September 16, 2014)