1086-30-1137 **Holly Krieger*** (`hkrieger@uic.edu`). *Primitive prime divisors in the critical orbit of $z^d + c$.*
I will discuss the existence of primitive prime divisors of dynamical sequences defined over number fields, focusing on the forward orbit under $z^d + c$ of the critical point. Guaranteeing a primitive prime divisor for all but finitely many forward iterates is related to bounding the recurrence of the critical orbit, which can be done using arithmetic dynamics, Diophantine approximation, or by bounding recurrence in terms of the multiplier for parameters inside hyperbolic components of the Mandelbrot set, and I will touch upon each of these approaches. (Received September 19, 2012)