

1106-VQ-1636      **Jason I Preszler\*** ([jpreszler@pugetsound.edu](mailto:jpreszler@pugetsound.edu)), University of Puget Sound, Dept. of Math and Computer Science, 1500 N Warner, CMB 1043, Tacoma, WA 98416. *An Infinite Family of Cubic Polynomials with Emergent Reducibility at Depth 1.*

A polynomial has emergent reducibility at depth  $n \geq 1$  if the polynomial is irreducible and  $n - 1$  self-compositions are also irreducible, but the  $n^{\text{th}}$  self-composition is reducible. We will discuss progress made in the study of this phenomena and its relation to arboreal Galois representations and arithmetic dynamics, culminating in an explicitly parameterized family of irreducible cubics whose self-compositions are reducible. (Received September 14, 2014)