Condense wandering triangles

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Let P be a complex polynomial with connected Julia set J. We say that $z \in P$ is a *wandering branch point* of P if $P^n(z)$ is never critical, never periodic, and $J \setminus \{z\}$ has at least three components. An important result in W. P. Thurston's theory of quadratic laminations, vital in analyzing the Mandelbrot set parametrizing such polynomials, is the No Wandering Triangles theorem, from W. P. Thurstons theory of invariant laminations. This result implies that quadratic polynomials have no wandering branch points. In this talk, we discuss joint work with Alexander Blokh and Lex Oversteegen, where we give examples of wandering vertices for cubic polynomials. We show that there are many such examples uncountably many in any open subset of the suitable parameter space. Even more, many of these examples have condense wandering vertices, meaning that the orbit of the wandering vertex intersects every non-degenerate continuum in the Julia set.