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Yan Mary He* (he@math.uchicago.edu). *Topology of the shift locus via the big mapping class group.*

The shift locus of (monic centered) complex polynomials of degree $d > 1$ is the set of polynomials whose filled-in Julia set contains no critical points. Traversing a loop in the shift locus gives rise to a holomorphic motion of Cantor Julia sets, which can be extended to a homeomorphism of the plane minus a Cantor set up to isotopy. Then, there is a well-defined monodromy representation from the fundamental group of the shift locus to the mapping class group of the plane minus a Cantor set. In this talk, I will discuss the image and the kernel of this map as well as the presentation of the fundamental group. This is joint work with J. Bavard, D. Calegari, S. Koch and A. Walker. (Received September 11, 2017)