Robert Chang* (hchang@math.northwestern.edu), Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, IL 60201. *Log-scale equidistribution of zeros of quantum ergodic eigensections.

Let \((L, h) \to (M, \omega)\) be a prequantum line bundle over a compact Kähler manifold. A symplectic map \(\chi: M \to M\) may be quantized as a sequence of quantum maps that act on the spaces of holomorphic sections of \(L^N\). In a joint work with Steve Zelditch, we show that if \(\chi\) satisfies certain dynamical assumptions, then for a density one subsequence of eigensections of the quantum maps, the masses and zeros are asymptotically equidistributed in balls of shrinking radii \((\log N)^{-\gamma}\), where \(N \to \infty\) is the degree of the line bundle and \(\gamma > 0\) is a constant independent of \(N\). (Received July 27, 2017)