
*Workshop dedicated to the memory of Professor Gabriela Kohr
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Zeros of random holomorphic sections of big line bundles with continuous metrics

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Abstract

Let X be a compact normal complex space, L be a big holomorphic line bundle on X and h be a continuous Hermitian metric on L . We consider the spaces of holomorphic sections $H^0(X, L^{\otimes p})$ endowed with the inner product induced by $h^{\otimes p}$ and a volume form on X , and prove that the corresponding sequence of normalized Fubini-Study currents converge weakly to the curvature current $c_1(L, h_{\text{eq}})$ of the equilibrium metric h_{eq} associated to h . We also show that the normalized currents of integration along the zero divisors of random sequences of holomorphic sections converge almost surely to $c_1(L, h_{\text{eq}})$, for very general classes of probability measures on $H^0(X, L^{\otimes p})$. This is joint work with Turgay Bayraktar, George Marinescu, and Viêt-Anh Nguyễn.