Abstract

A suitable notion of ''holomorphic section'' of a prequantum line bundle on a compact symplectic manifold is the eigensections of low energy of the Bochner Laplacian acting on high p-tensor powers of the prequantum line bundle. We explain the asymptotic expansion of the corresponding kernel of the orthogonal projection as the power p tends to infinity. This implies the compact symplectic manifold can be embedded in the corresponding projective space. With extra effort, we show the Fubini-Study metrics induced by these embeddings converge at speed rate $1/p^{2}$ to the symplectic form. We explain also its implication on Bezerin-Toeplitz quantizations.