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*Berezin-Toeplitz quantization in real polarizations*

A fundamental theorem in Berezin-Toeplitz quantization states that, on a compact Kaehler manifold, a unique deformation quantization is determined by its asymptotic action via Toeplitz operators on the quantum Hilbert space in Kaehler polarization. Since Schlichenmaier proved this result, numerous research in this area has been emerging. In this talk, I will discuss how to construct Toeplitz type operators beyond the case of Kaehler polarizations so as to obtain an analogue to Schlichenmaier's result. I will especially focus on compact symplectic manifolds with a pair of transversal real polarizations. Noting that the construction of Toeplitz operators in the Kaehler case involves the inner product on the space of $L^2$ sections of the prequantum line bundle, I will also explain how to overcome the difficulty that the quantum Hilbert spaces in real polarizations are distributional sections.