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*Berezin–Toeplitz operators and vector coherent states related to supersymmetric quantum mechanics*

In this talk we intend to discuss a set of newly constructed vector coherent states and associated Berezin–Toeplitz operators, which arise in supersymmetric quantum mechanics. Assuming that supersymmetry is unbroken, these coherent states are related to the two almost isospectral (i.e., except for the ground state) Hamiltonians of the theory. The analytic representation of the system lives on a Hilbert space consisting of two mutually orthogonal subspaces of analytic and anti-analytic functions, corresponding to the bosonic and fermionic sectors, respectively. The representation can also be transferred to a supersymmetric Hilbert space. We discuss the associated quantization problem and the ensuing Berezin–Toeplitz operators.