
On Kato's representation theorem for a class of functions on infinite dimensional Kähler manifolds

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Kato's representation theorem provides a necessary and sufficient condition for a positive Hermitean quadratic form on a Hilbert space to be representable by a (positive) self-adjoint operator, hence to define a strongly continuous one-parameter group of unitary operators and conversely.

In this talk we will explore a non-linear extension of this correspondence: given an infinite dimensional Kähler manifold, we will introduce a class of functions (not necessarily continuous) that give rise to one-parameter groups of holomorphic transformations as in Kato's theorem, that is, they can be represented by a dynamical system, whose flow is the desired one-parameter group of transformations.