

Noncommutative L^p -theory in quantum dynamics
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The lecture discusses applications of Markov semigroups and of quantum stochastic calculus in noncommutative L^p -theory. Thereby, we will see many Markov dilations.

Outline:

- I. Operator spaces and noncommutative L^p -spaces
- II. Noncommutative Brownian motions and quantum stochastic calculus
- III. Noncommutative Riesz transforms, Markov dilations, and unitary dilations
- IV. Noncommutative Martingale inequalities