

Narutaka Ozawa

Closable derivations on finite von Neumann algebras

I will give a lecture on derivations from finite von Neumann algebras into bimodules which are closable as Hilbert space operators. I will cover (1) the basic theory of Sauvageot and Davies--

Lindsay

which gives correspondence between derivations and semigroup of trace-preserving unital completely positive maps (quantum Markov semigroup); and (2) Peterson's applications to the structure theory of von Neumann algebras.