



Gaussian Quantum Markov Semigroups, Irreducibility and Positivity Properties

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Abstract.

We introduce Gaussian quantum Markov semigroups on boson Fock spaces and discuss irreducibility and positivity improvement properties. In particular, we show that strict positivity of the Kossakowski matrix implies irreducibility. Moreover, under the technical assumption that a certain associated semigroup is analytic, that any positive operator is transformed into a strictly positive operator for any time $t > 0$.

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References

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