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The gradient operator and the divergence operator on the interacting Fock space \(l^2(\Gamma, \{\lambda_n\})\).

(Chinese. English summary) [Zbl 07404523]


Summary: In this paper, we show the gradient operator and the divergence operator on the interacting Fock space \(l^2(\Gamma, \{\lambda_n\})\). First, we present the definition of the gradient operator and the divergence operator, and then discover that the gradient operator is a closed linear operator, densely in it domain, the same to the divergence operator. Finally, we obtain that the composition of the gradient operator and the divergence operator on the interacting Fock space is identical to the number operator on it.

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