Realization of Quantum Circuits in Fock Space

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Abstract: In this letter, by using the method we offered in our paper [L. Ma and Y.D. Zhang, Commun. Theor. Phys. (Beijing, China) 36 (2001) 119], some extended quantum logic gates, such as quantum counter, quantum adder, are studied and their expressions are given. It may be useful for us to study the more complicated quantum logic circuits deeply.

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