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Degree of Entanglement for Some Bipartite Entangled Bosonic Systems

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Abstract: We calculate the degree of entanglement for some bipartite entangled states of continuous variables. These states include common two-mode squeezed vacuum state, thermal vacuum state of a free single particle (where the fictitious tilde system is regarded as another particle), and the squeezed vacuum state of two coupling harmonic oscillators. The degree of entanglement for these quantum systems are shown clearly by using the technique of integration within an ordered product of operators.

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