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A Kind of Three-Mode Entangled States of Continuum Variables Generated by Beam Splitter and Parametric Down-Conversion Amplifier

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Abstract: In three-mode Fock space we find a new tripartite entangled state $|\alpha,\gamma>_{\lambda}$, which make up a new quantum mechanical representation. The state $|\alpha,\gamma>_{\lambda}$ can be generated by using the setup composing of a beam splitter and a parametric down-conversion amplifier. Application of the state is briefly discussed.

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