Multiphoton Squeezed States

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Abstract: We present analytical results for the multiphoton squeezed states defined through nonlinear quadrature-dependent Bogoliubov transformations. These analytical results turn a nonlinear problem into an essentially linear one and they can be utilized to express explicitly the mean values and deviations of the quadrature operators and the photon variables under the multiphoton states in terms of those quantities averaged over the standard squeezed states which only involves the quadrature-independent Bogoliubov transformation.

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