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The Behavior of The Zeros of Bargmann Analytic Functions for Multiple-Mode Systems

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Abstract : The paper contains an investigation of the behavior of the Zeros of Bargmann functions for one and two-mode systems. A brief introduction to Harmonic oscillator formalism for one and two-mode is given. The Bargmann analytic representation for one and two-mode has been studied. The zeros of Bargmann analytic function for one-mode are considered. The Q Husimi functions are introduced. The Bargmann functions and the Husimi functions have the same zeros. The Bargmann functions f(z) have exactly q zeros. The evolution time of the zeros are discussed. The zeros of Bargmann analytic functions for two-mode are introduced. Various examples have been given.

Keywords: Bargmann functions, two-mode, zeros, harmonic oscillator

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