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Jose M Vega-Guzman^{*} (jose.vegaguzman@lamar.edu), 200 Lucas Building, PO Box 10047, Beaumont, TX 77710. Schrodinger Group and the Minimum-Uncertainty Squeezed States for the Non-Relativistic Harmonic Oscillator.

A multi-parameter family of the minimum-uncertainty squeezed states for the harmonic oscillator in non-relativistic quantum mechanics is explored with the aid of the in terms of the maximum kinematical invariance of the Quantum Harmonic oscillator. It is shown that the product of the variances attains the required minimum value only at the instances that one variance is a minimum and the other is a maximum, when the squeezing of one of the variances occurs. The generalized coherent states are explicitly constructed and their Wigner function is studied. The invariance group of the generalized driven harmonic oscillator is shown to be isomorphic to the corresponding Schrodinger group of the free particle. (Received September 26, 2017)