Commun. Theor. Phys. **66** (2016) 269–274 Vol. 66, No. 3, September 1, 2016

**Entropy, Fisher Information and Variance with Frost-Musulin Potenial**

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(Received February 22, 2016; revised manuscript received April 19, 2016)

***Abstract***

*This study presents the Shannon and Renyi information entropy for both position and momentum space* *and the Fisher information for the position-dependent mass Schr*¨o*dinger equation with the Frost-Musulin potential. The* *analysis of the quantum mechanical probability has been obtained via the Fisher information. The variance information* *of this potential is equally computed. This controls both the chemical properties and physical properties of some of the*  
*molecular systems. We have observed the behaviour of the Shannon entropy. Renyi entropy, Fisher information and* *variance with the quantum number n respectively.*

**PACS numbers:** 03.65.Ca, 03.65.Ta, 89.70.+c, 31.15.Ew, 02.50.Cw  
**Key words:** Fisher information, Shannon entropy, position-dependent mass

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