



# ***SEMINAR ANNOUNCEMENT***

## **“Exploring higher order continuous variable non-classicality”**

**Dr. Sintayehu Tesfa**

*Assistant Professor, Physics Department, Jazan University*

**Wednesday, 2 Dec 2015, 11-12 PM, ROOM No. 2308**

Hoping to contribute to the observation of 2015 as light year, I try to explore the possible applications of light in quantum information processing tasks and understanding of quantum theory. Particularly, I attempt to establish the notion of non-classical property of light starting with the well celebrated work of Einstein, Podolovsky and Rosen (usually dubbed as EPR paradox). I restrict my talk to continuous variable nonlocality, squeezing, entanglement, quantum discord and steering where I highlight the available theoretical works, existing experimental challenges, the emerging applications and future directions for lower order non-classicality. I also address the need for studying higher order continuous variable non-classicality. Mainly, I concentrate on higher order squeezing and tripartite entanglement along with the involved practical challenges and future directions.

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