



Contribution ID: 422

Type: **Oral Presentation**

## Unsharp measurement in Quantum Mechanics and its realization

*Thursday, 12 July 2012 11:20 (20 minutes)*

### Abstract content <br> &nbsp; (Max 300 words)

In recent years a generalized notion of quantum mechanical observables has been developed in terms of positive operator valued measure (POVM). The POVM formalism of observables captures features of quantum mechanics in a more comprehensive way than the standard formalism. Certain POVMs can be interpreted as unsharp quantum measurements. This article reviews the notion of unsharp measurement, its utility and experimental realization(s).

### Apply to be<br> consider for a student <br> &nbsp; award (Yes / No)?

No

### Main supervisor (name and email)<br>and his / her institution

Prof Thomas Konrad, konradt@ukzn.ac.za, University of KwaZulu-Natal, Durban

### Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

yes

**Primary author:** Dr CHOUDHARY, Sujit Kumar (School of Physics, University of KwaZulu-Natal, Durban, South Africa.)

**Co-authors:** Dr UYS, Hermann (National Laser Centre, Council for Scientific and Industrial Research, Pretoria, South Africa); Dr KONRAD, Thomas (UKZN, Durban)

**Presenter:** Dr CHOUDHARY, Sujit Kumar (School of Physics, University of KwaZulu-Natal, Durban, South Africa.)

**Session Classification:** Theoretical

**Track Classification:** Track G - Theoretical and Computational Physics