

## **Accelerating cryogenic axion searches with one and two mode squeezed states.**

*Thursday, 27 August 2015 13:10 (40 minutes)*

The search rate of cryogenic axion cavity search will soon be limited by fundamental quantum fluctuations of the microwave field. In this talk, I will describe how this noise can partially be overcome using quantum squeezing of the microwave field. In contrast to what is often thought to be the case, I will show that it is in principle possible to measure both quadratures of the axion induced microwave field without adding measurement noise.

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