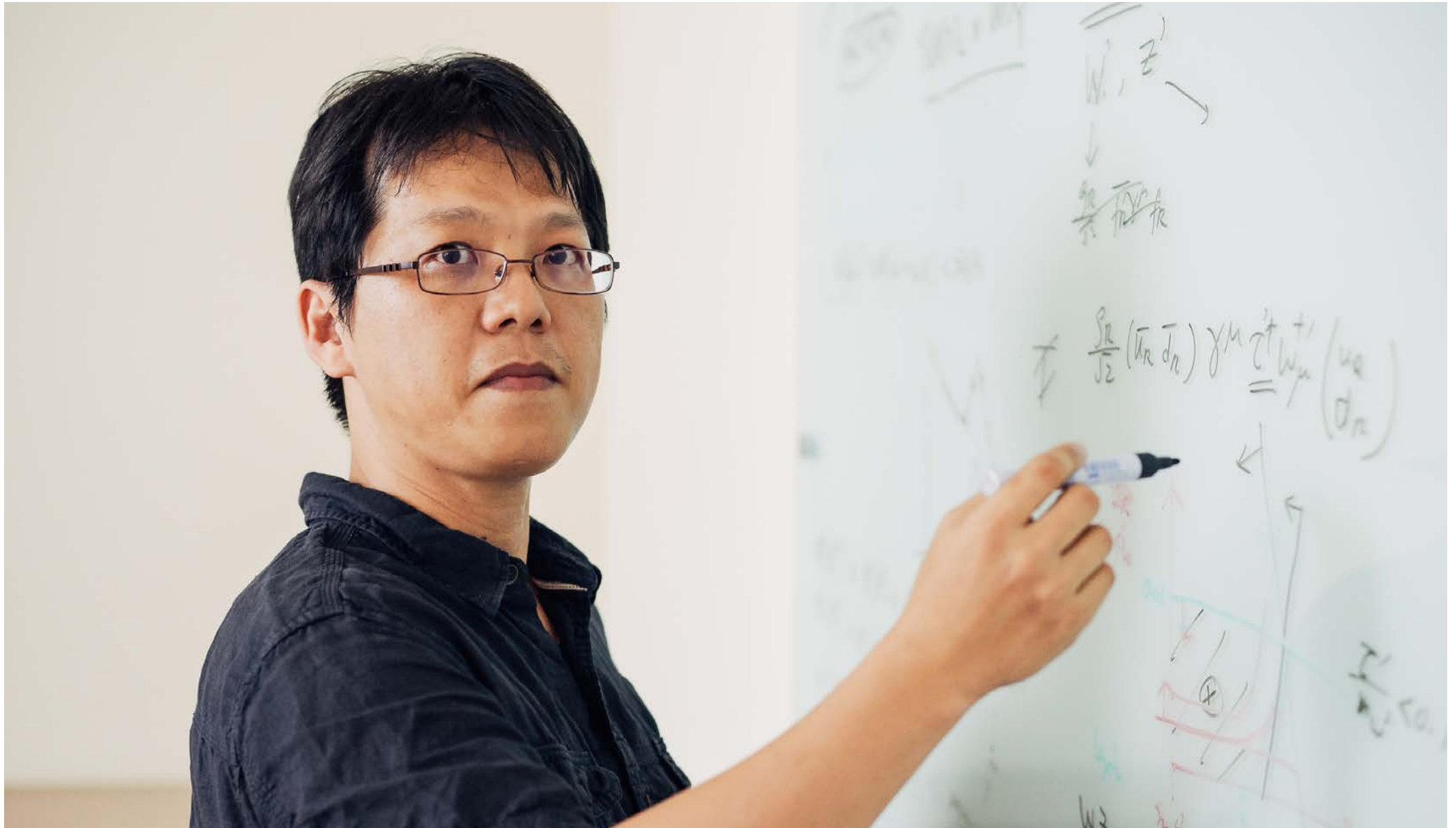


NCTS Colloquium



Prof. Ray-Kuang Lee

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November 15, 2018

15:30-16:30, Thursday

Lecture Room A of NCTS

4F, 3rd General Building, NTHU

Quantum Noise Squeezing and its Applications to Gravitational Wave Detectors

In this talk, I will report our recent implementation of squeezed vacuum states at 1064 nm. With a bow-tie optical parametric oscillator (OPO) cavity, and our home-made balanced homodyne detectors, noise reduction up to 10dB below the vacuum is measured.

Applications of our squeezer to the gravitational wave detection will be discussed, with the collaboration with Japanese KAGRA project.



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