

SQUEEZED LIGHT AND THE DETECTION OF GRAVITATIONAL WAVES

ROMAN SCHNABEL

Universität Hamburg,
Institut für Laserphysik

Laser light with a 'squeezed' quantum uncertainty shows less quantum noise and allows for improved optical measurements. The most prominent example is the use of squeezed light in gravitational wave detectors. Soon, also LIGO will be equipped with squeezed light. In principle, it allows for ultra-sensitive measurements in the so-called quantum non-demolition regime. But what is squeezed light, how is it produced and what are its other potential applications? This talk will answer these questions.

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