

QUANTUM OPTICS

Masers and lasers have provided an important tool for the study of statistical phenomena in physics. Quantum optical experiments have demonstrated properties such as phase transitions, symmetry breaking, bistability and multistability, and chaotic regimes of operation. Much study has been made of the statistical properties of radiation, and has led to notions such as photon antibunching and squeezed states. Production of such states has been suggested as a means to enhance the signal-to-noise ratio in sensitive optical measurements, such as interferometers to detect gravitational waves or ring-laser gyroscopes. The papers in this section are representative of work going on in this active and productive area.