

**FIGURE**

Advanced optical measurement experiment at Griffith University.

## Griffith University

The Griffith University Program of the Centre operates on the Nathan Campus out of a number of academic offices and postgraduate rooms. These are equipped with late-model PC and MAC computers used for numerical simulations. Intensive calculations are supported by links to the Queensland Parallel Supercomputing facility located in the same building as most of the staff. The group members share ideas with each other and visiting scientists at formal and informal seminars and workshops held in centrally allocated venues. A digital whiteboard device enables downloading of group discussion notes into electronic format.

The Quantum Optics and Information Laboratory at Griffith University is an 80 square metre space which is temperature-controlled, vibration-damped, and optimised

for low-light quantum optics experiments. The lab is equipped with a high-power (2.7 W average power) femtosecond laser and two 60 mW violet diode lasers, resting on high-performance vibration-isolated optical tables, including a state-of-the-art, actively stabilized, "SmartTable." The lab is equipped with a number of single photon detectors, multiple nonlinear crystals for generating single photon pairs, custom designed optics, and computer-controlled motion stages for setting the position of optical elements with very high precision. 2007 saw the addition of extra vibration-isolated table space, additional motion control systems and optical detection hardware, and more sophisticated photon counting and signal processing electronics, including an 8-channel fully configurable logic system for analysing photonic quantum information experiments.