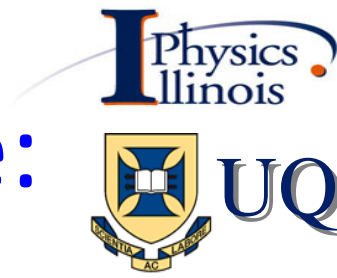


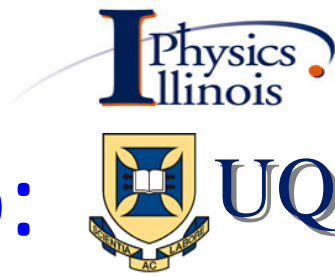
Who we are:



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- **Institutions:** Universities of Illinois, Queensland, Bristol, Maryland Baltimore County, & Toronto; Louisiana State University; Imperial College of London; and IQOQI (Vienna)
- **Lead:** Paul Kwiat
- **Current team:** Andrew White, James Franson & Todd Pittman, Jeremy O'Brien, Anton Zeilinger, Jonathan Dowling, Daniel James, Timothy Ralph, and Terry Rudolph



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What we do:

- **Photonic quantum computation**
- **Experimentally:** single- & entangled-photon sources, quantum circuitry, quantum delays, single-photon detection.
- **Theoretically:** quantum tomography, quantum algorithms, quantum error correction, design of new QC schemes, techniques.
- **In general:** quantum information, control, metrology, & foundations

Qualifications & capabilities:



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- Leading teams in photonic quantum computing
 - Invented and/or developed: critical optical quantum technologies, many LOQC schemes; quantum state & process tomography; key quantum algorithms (Grover's, Shor's, trace-estimation, quantum chemistry, ...)
 - Developing: efficient heralded-photon (single and entangled) sources; efficient photon detectors (cryogenic); integrated-optic circuits; photon delays, ultra-low loss optics

Seeking...



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- At both ~ 800 nm & ~ 1550 nm
 - efficient single-photon sources (e.g., separable downconversion, FWM, quantum dots, NV-centers...)
 - efficient photon detectors, number-resolving, fast
 - low-loss integrated optics (waveguides, fibers, hybrid...)
 - photon delays and/or quantum memories
 - system engineering

Contact Information:



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