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Measuring and Characterizing Quantum States and Processes
Professor Daniel James, University of Toronto

Abstract:
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Biography:
Daniel James is a Welshman, born in rainy Manchester within site of Old Trafford, (the home of Manchester United, the most successful sports team in record human history). He was educated at the Manchester Grammar School (1975-82), New College, Oxford (1983-86) and at The Institute of Optics, University of Rochester (1986-92), where he earned his Ph.D. in Optics in 1992 under the tutelage of Prof. Emil Wolf. From 1994 until 2005 he was a staff member in group T-4 (Atomic and Optical Theory), Theoretical Division, Los Alamos National Laboratory. Since September, 2005 he has been the Tier-1 Canada Research Chair in Atomic and Optical Physics at the University of Toronto. His scientific accomplishments include the first tomographic characterization of an entangled quantum state; the demonstration of quantum teleportation with atoms, and the implementation of a simplified version of the Shor factor-finding algorithm with entangled photons.