Luke A. W. Robinson

Fitzwilliam College,
Cambridge, CB3 0DG
Untied Kingdom

Email: lawr2@cam.ac.uk

Current

Differed: Research Fellow, Fitzwilliam College Cambridge

Interests

Methods for discovering and representing information redundancy and cognition, Manipulating quantum dots, Quantum information architectures,

Education / Awards

1995, 1997-1998	Curtin University of Technology, Perth Australia. Bachelor of Science, graduated with distinction. Research project: Percolation in high temperature superconductors.
1996	Taught physics, maths and english in refugee camp in Thailand
1998-1999	Australian National University (ANU), ACT, Australia. B.Sc. Hons. Phys, graduated with high distinction (First Class). Hons. Thesis: Velocity Selective Coherent Population Traps and Superposition States in Meta Stable Helium.
1999	ANU Research School of Physical Sciences and Engineering - Honours Scholarship.
1999 Summer	ANU Vacation Scholarship in Plasma Physics. Summer research: Non-linear wave-particle interactions in helicon plasmas.
2001- 2005	Cambridge University, Cavendish Laboratory. PhD, Physics. Research Topic: Manipulating charge and spin states in nanotubes, Quantum information processing
2003	Demontfort Medal (£500): Given for the best work by a UK based researcher under 35 in Nanoscience, presented at the Houses of Parliament.
2003	Best Poster (300 US$): Trends in Nanotechnology conference, 2003, Salamanca, Spain. “Electrical properties and applications of self-aligned side gates to single walled nanotubes”

2004	Best Poster (350 euros): Trends in Nanotechnology conference, 2004, Segovia, Spain. “Single step self-aligned side gates for spin detection and quantum information processing”
2004	Research Fellowship, Fitzwilliam College Cambridge

Other Experience

2003-2004	Taken an active role in the supervision and set up of a PhD student project
2003	Supervised and planned a fourth year undergraduate research project
2001- 2005	Director of EasyLegal, a legal accounting software company servicing 30 law firms throughout the UK.
2003	Helped run a class on semiconductors
2000	Put together immigration cases and helped plan a Qatar human rights appeal
1996	Science teacher in a refugee camp (North Thailand).

Papers

Nanofabrication study on suspended carbon nanotube structures, L.A.W. Robinson, S.-B. Lee, K.B.K. Teo, M. Chowalla, D.G. Hasko, G.A.J. Amaratunga, W.I. Milne, and H. Ahmed, Nanotechnology, 14, 290 (2003).

Self-aligned electrodes for suspended carbon nanotube structures, L.A.W. Robinson, S.-B. Lee, D. Williams, D.G. Hasko, and H. Ahmed, Microelectronic Engineering, (2003).

Nanofabrication study on suspended multiwalled carbon nanotube nanostructures, S.B. Lee, L.A.W. Robinson, K.B.K. Teo, M. Chhowalla, D. G. Hasko, G.A.J. Amaratunga, W.I. Milne, and H. Ahmed, to be published in J. Nanoscience & Nanotechnology, (2003).

Carbon nanotube technology for solid state and vacuum electronics K.B.K. Teo, R.G. Lacerda, M.H. Yang, A.S. Teh, L.A.W. Robinson, S.H. Dalal, N.L. Rupesinghe, M. Chhowalla, IEE Proceedings in Circuits, Devices and Systems **151**, 443 (2004).

Papers to be Prepared:

Nanotube transistors from self-aligned side gate electrodes, L.A.W. Robinson, K.B.K. Teo, M. Chhowalla, D.G. Hasko and D.G. Williams.

A new spin based quantum computer with integrated spin detection system, L.A.W. Robinson, Williams and D.G. Hasko

A new electron spin detection system in SWCNT with magnetic self aligned side gates, L.A.W. Robinson, Williams and D.G. Hasko

Conference presentations

Gated Carbon Nanotube Device for Solid-State Quantum Information Processing, L.A.W. Robinson, K.B.K. Teo, M. Chhowalla, D.G. Hasko, D.G. Williams. Presented at the international Conference on Solid State Quantum Information Processing, December 15-18, 2003

Electrical properties of self-aligned side gates to single walled nanotubes, L.A.W. Robinson, S.-B. Lee, K.B.K. Teo, M. Chhowalla, D.G. Hasko, G.A.J. Amaratunga, W.I. Milne and H. Ahmed, presented at Trends in Nanotechnology, 2003, Salamanca, Spain.

Electrical behaviour of Self-aligned electrodes on suspended carbon nanotube structures L. A. W. Robinson, S.-B. Lee, D. A. Williams, D. G. Hasko, and H. Ahmed Presented at The International Conference on the Science and Application of Nanotubes 2003, July 7-11, 2003 in Seoul, Korea

Nanofabrication study on suspended carbon nanotube structures, L.A.W. Robinson, S.-B. Lee, K.B.K. Teo, M. Chhowalla, D.G. Hasko, G.A.J. Amaratunga, W.I. Milne and H. Ahmed, presented at Trends in Nanotechnology conference, 9-13 Sep. 2002, Santiago de Compastela, Spain.

Self-aligned carbon nanotube nano-electromechanical systems, S.-B. Lee, L.A.W. Robinson, A.S. Teh, K.B.K. Teo, M. Chhowalla, D.G. Hasko, G.A.J. Amaratunga, W.I. Milne and H. Ahmed, to be presented at the 2003 Spring Meeting of the Materials Research Society, 21-25 Apr. 2003, San Francisco, California, USA.