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## CURRICULUM VITAE

### Publications

#### *Peer-reviewed*

- :: ANGUS, S.D. & NEWNHAM, A. ‘The Bit-Economy: An artificial model of specialisation and open-ended technology discovery’, *Complexity*, 18(5):57-67 (2013) (ERA-2010: B).
- :: ANGUS, S.D. ‘Did recent world record marathon runners employ ‘optimal’ pacing strategies?’, *Journal of Sports Sciences*, (available online, B).
- :: ANGUS, S.D. & PIOTROWSKA, M.J. ‘A numerical model of EMT6/Ro spheroid dynamics under irradiation: calibration & estimation of the underlying irradiation-induced cell survival probability’, *Journal of Theoretical Biology*, 320:2332, (2013). (A\*)
- :: ANGUS, S.D. & WATERHOUSE, B.J., ‘Pacing Strategy from High Frequency Field Data: more evidence for neural regulation?’, *Medicine & Science in Sports & Exercise*, 43(12):2405-2411 (Dec 2011). (A\*) [Scopus (April ‘13)/GoogleScholar citations: 4/4]
- :: ANGUS, S.D. & PIOTROWSKA, M.J., ‘The onset of necrosis in a 3D cellular automaton model of EMT6 multi-cellular spheroids’, *Applicationes Mathematicae*, 37(1):69-88 (2010). (C) [na/1]
- :: ANGUS, S.D., PARRIS, B. & HASSANI-M, B., ‘Climate change impacts and adaptation in Bangladesh: an agent-based approach’, Proceedings of the 18th IMACS World Congress, MODSIM09, p.207, 13-17 July, 2009. [1/3]
- :: PIOTROWSKA, M.J. & ANGUS, S.D., ‘A quantitative cellular automata model of *in vitro* multicellular spheroid tumour growth’, *Journal of Theoretical Biology*, 258:165-178 (2009). (A\*) [9/13]
- :: ANGUS, S.D. & WATSON, J., ‘Does regular online testing enhance student learning? Evidence from a large first-year quantitative course’, *British Journal of Educational Technology* (BJET) 40(2):255-272 (2009). (A) [17/41]
- :: ANGUS, S.D. & PIOTROWSKA, M.J., ‘Towards a 3D Cellular Automaton Model of Multi-Cellular Spheroids’, paper accepted to the XIV National Conference Application of Mathematics to Biology and Medicine, Leszno, Poland 17-21 Sept. 2008.
- :: LORD, H.T., QUINN, J.F., ANGUS, S.D., WHITTAKER, M.R. & DAVIS, T.P.; Microgel Stars via Reversible Addition Fragmentation Chain Transfer Polymerization – A Facile Route to Macroporous Membranes, Honeycomb Patterned Thin Films and Inverse Opal Substrates, *Journal of Materials Chemistry*, **13** (2003), 2819–2824. (A) [92/103]
- :: ANGUS, S.D. & DAVIS, T.P.; ‘Polymer Surface Design and Infomatics: Facile Microscopy/Image Analysis Techniques for Self-Organizing Microporous Polymer Film Characterization’, *Langmuir*, **18** (2002), 9547–9553. (A\*) [16/16]

## Publications (continued)

### *Mimeos/Book Chapters*

- :: BERRYMAN, M. & ANGUS, S.D. ‘Agent-based Modelling & Network Analysis Tutorials’, forthcoming in ‘World Scientific Lecture Notes in Complex Systems’.
- :: ANGUS, S.D.; ‘Economic Networks: Communication, Cooperation and Complexity’, PhD Dissertation, UNSW, (submitted Oct 2006, accepted Mar 2007), available through the Australian Digital Thesis project: <http://www.library.unsw.edu.au/~thesis/adt-NUN/public/adt-NUN20070329.093909/>.

## Grants Awarded

- 2013 – :: Faculty Pilot Research Grant – “How was Australian Economic Behaviour affected by the Global Financial Crisis? Evidence from online search data” | \$11,000: *Faculty of Business and Economics, Monash University.*
- 2012 – :: Economics Pilot Grant – “Mapping the industrial revolution” | \$9,600: *Dept. of Economics, Monash University.*
- 2009 – :: Faculty Pilot Research Grant (with Brett Parris) – “Integrated Climate-Economy modelling in Bangladesh” | \$11,000 approx: *Faculty of Business and Economics, Monash University grant for pilot research.*
- 2009 – :: University of Monash Europe Travel Grant – “Computational Oncology Research Trip to Warsaw, Poland” | \$6,000: *University of Monash grant to support a month long research trip to work with Dr Monika Piotrowska on computational models of early stage tumour growth.*
- 2008 – :: Faculty New Staff Grant – “A broad research programme in dynamic, ad-hoc economic networks” | \$10,000: *Faculty of Business and Economics, Monash University grant for new staff.*
- 2008 – :: Faculty Innovation in Teaching Grant – “EconomicsNow! Podcasting Project” | \$20,000: *Faculty of Business and Economics, Monash University grant to set up a novel podcasting website with video and audio content generated during the academic session.*

## Education

### *Tertiary*

- 2002–2006 :: Ph.D. (‘Economic Networks: Communication, Cooperation & Complexity’, submitted Oct 2006, accepted (without revisions), Mar 2007), UNSW;  
:: Th.C. Moore Theological College, Sydney, Australia.
- 1998–2002 :: B.Sc (Industrial Chemistry), Hons I, UNSW [see Publications]  
:: B.A. (Political Science & International Relations), UNSW.

### *Secondary*

- 1994–1997 :: Victorian Certificate of Education (VCE), Melbourne Grammar School (Melbourne, Australia).  
School Captain (1997), Middle-school Captain (1993), Junior-school Captain (1991). Tertiary Entrance Rank (TER): 99.20.

## Academic Positions held

- 2008 – :: Senior Lecturer (from 2011), Lecturer (2008-2010), Department of Economics, Monash University (Clayton). Service activities: Honours Coordinator; Chair, Innovations & Quality in Education Group, B.Com Undergraduate Coordinator.
- 2006–2007 :: Lecturer, School of Economics, UNSW.

## Scholarships, Prizes & Awards

- 2011 :: Australian Learning & Teaching Council Citation for Outstanding Contributions to Student Learning.
- 2010 :: Monash Vice-Chancellor's Citation for Outstanding Contributions to Student Learning.
- 2009 :: Monash Faculty of Business & Economics Excellence in Teaching Award.
- 2008 :: Australian School of Business (Faculty of BusEco at UNSW) Teaching Innovation Award (jointly, with Judith Watson).
- 2007 :: SFI Scholar, Santa Fe Institute (NM, USA) Complex Systems Summer School | *Accepted to attend this intensive four-week workshop on complexity science, nonlinear dynamics, socio-economic modelling, and inter-disciplinary science.*
- 2006 :: The Dean's Award | 'for substantial and significant voluntary contribution to the development of the Faculty of Commerce and Economics.'
- 2004 :: Santa Fe Institute (NM, USA) Graduate Workshop on Computational Social Sciences and Complexity | *Selected as one of ten PhD students to participate in this two-week workshop at the SFI, developing computational and complexity science techniques, and workshopping emerging personal research projects.*
- 2002–2006 :: Australian Post-graduate PhD Award | *Fees & living stipend, tenable at any Australian Tertiary Institution for post-graduate studies of 2 or 3 years.*
- 2002 :: Runner up, The Trelor Prize at The 25th Australasian Polymers Symposium, Armidale, NSW | *A prize for best symposium presentation by a researcher, 20-30 years of age.*
- 2001 :: The Australian CRC for Polymers 4th Year Honours Research Prize | *Awarded for best Honours Project amongst the Cooperative Research Centre for Polymers member groups.*
- :: The ERA Polymers Prize in Industrial Chemistry Honours Project | *For the best performance in the Honours Project in Industrial Chemistry.*
- :: The Samos Polymers Prize in Advanced Polymers | *For the best performance in the year 4 elective CEIC6104 Advanced Polymers.*
- 2000–2001 :: The Qenos Frank Viccaro Memorial Prize for Industrial Training | *Awarded to one student from UNSW Industrial Chemistry to undertake Summer Vacational Industrial Training with Qenos Pty Ltd, Botany, NSW.*
- 1998–2001 :: The Southern Cross Foundation Australia-Wide Scholarship | *One of four scholarships awarded for "proven academic ability and leadership potential in Australian Science and Engineering, tenable for four years at any tertiary institution in Australia, for the study of Engineering and Technical-based Sciences."*

## Teaching Experience

- 2008 – :: Lecturer, Department of Economics, Monash University (Clayton). Teaching responsibilities including: ECC2800 ‘Prosperity, Poverty & Sustainability’, ECC3860 ‘Integrated Economic Modelling’.
- 2006–2007 :: Lecturer, School of Economics, UNSW; substantially revising, developing and delivering the first-year *Quantitative Methods A*.
- 2004–2005 :: Casual tutoring, in the School of Economics, UNSW – Game Theory and Business Strategy (S1 2004, 2005), Microeconomics (S2 2005), Quantitative Methods B (S2 2005) including an occasional lecturing opportunity within the Game Theory and Business Strategy Course.
- 1999–2000 :: Academic Advisor (Chemistry), New College, the University of New South Wales (up to 5hpw). Tutoring any 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> year chemistry course.

## Professional Experience, Association, Contribution

- 2008 :: Instructor, organiser of the Agent-based and network modelling workshop (with Matt Berryman) at the ANU Complex Physical, Biophysical and Econophysical Systems Summer (ANU, 8-19 Dec)
- 2008 :: Organising committee, Complex Connections at Kioloa (Kioloa Campus, ANU, 11-14 Nov) an COSNet ECR (and other) research collaboration workshop
- 2007 :: Instructor, organiser of computing tutorials, COSNet & MASCOS Complex Systems: Beyond the Metaphor workshop (UNSW)
- 2007–2008 :: Founding member (one of three) & organiser of the Sydney Agents Group | A group dedicated to running regular seminars and events related to Agent-based modelling techniques in the financial and economic sciences.
- 2005– :: Member COSnet - the Australian Complex Open Systems Network | *Including membership and contribution to the ‘Network Theory Working Group’ (CSIRO, Canberra).*
- 2004–2005 :: Faculty of Commerce and Economics Research Committee, UNSW. | *Post-graduate student representative.*
- 2002–2004 :: The Centre for Advanced Macromolecular Design, (CAMD), UNSW, Kensington, NSW | *Part-time (one day per week) work as a research scientist, looking at the characterisation (image-analysis) and simulation of a novel self-organizing polymer film formation process. [see Publications]*
- 2000–2001 :: Qenos Pty Ltd, Botany, NSW | *Vacation employment (see Scholarships & Prizes above), working in the poly-ethylene ALKATHENE plant as an on-site research industrial chemist, a project focussing on catalyst technology.*
- 2000 :: Sewerage Treatment Plant, Thursday Island, Torres Strait, QLD | *Working with the Torres Shire Council as a volunteer plant engineer, helping local technicians to implement overdue commissioning work.*
- 1999–2000 :: Comalco Research and Development, Thomastown, VIC | *Vacation employment, working with the carbon group on anodic technology for large-scale aluminium electrolysis.*