

ALLAN F. RANDALL

CURRICULUM VITAE

April, 2018

School of ICT, Seneca College
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EDUCATION

Ph.D., York University, Philosophy, 2014 (*An Algorithmic Interpretation of Quantum Probability*)
M.A., York University, Philosophy, 2006 (*Limit Recursion & Gödel's Incompleteness Theorem*)
M.Sc., University of Alberta, Computing, 1990 (*Relaxation & Matching Relational Structures*)
B.Sc., St. Francis Xavier University, Mathematics and Computer Science, 1986

ACADEMIC APPOINTMENTS

2016- Professor, School of Information & Communications Technology, Seneca College

PUBLICATIONS

PEER-REVIEWED ARTICLES

- 2016 "Quantum Probability as an Application of Data Compression Principles", *Electronic Proceedings in Theoretical Computer Science* 214, pp. 29-40,
[doi:10.4204/EPTCS.214.6](https://doi.org/10.4204/EPTCS.214.6)
- 2000 "Layered protocols and coalescent argumentation," *Proceedings of the 3rd International Conference of the Ontario Society for the Study of Argumentation*,
<http://scholar.uwindsor.ca/ossaarchive/OSSA3/papersandcommentaries/44/>

INVITED BOOK CHAPTERS

- 2016 "Transhumanist Leibniz: Immortality, God and Panpsychism in the Information Age," *Death And Anti-Death, Vol. 14: Four Decades After Michael Polanyi, Three Centuries After G. W. Leibniz*, C. Tandy (Ed.), Ria U. Press, Ann Arbor
- 2005 "Parmenides of Elea," *Meet the Philosophers of Ancient Greece*, P.F. O'Grady (Ed.), Ashgate, Aldershot

TECHNICAL REPORTS (FOR MINISTRY OF DEFENCE, CANADA)

- 2006 *A parallel distributed model of the Stroop colour test* (with W. Fraser), NTT Systems Inc., Defence Research and Development Canada, Toronto
- 2006 *Modelling synesthesia in parallel distributed networks* (with W. Fraser), NTT Systems Inc., Defence Research and Development Canada, Toronto
- 2005 *Parallel distributed processing for computational cognitive neuroscience: a survey*, NTT Systems Inc., Defence Research and Development Canada, Toronto.
- 2002 *Perceptual control analysis of SUSOPS tasks* (with M.M. Taylor), NTT Systems Inc., Defence Research and Development Canada, Toronto

- 1995 *Reorganizing Control Networks in the Recognition of Syntax* (with M.M. Taylor), NTT Systems Inc., Defence and Civil Institute of Environmental Medicine, Toronto
- 1993 *Neural Control Networks: A Literature Survey*, NTT Systems Inc., Defence and Civil Institute of Environmental Medicine, Toronto
- 1992 *Studies of Self-Organised Dynamic Behaviour in Neural Networks* (with M.M. Taylor), NTT Systems Inc., Defence and Civil Institute of Environmental Medicine, Toronto

CONFERENCE PAPERS

- 2015 “A toy algorithmic model of quantum probability”, *Quantum Probability and the Mathematical Modelling of Decision Making*, Fields Institute, Toronto
- 2014 “Living in a cybernetic universe”, *50th Anniversary Conference of the American Society for Cybernetics*, The George Washington University, Washington, DC
- 2004 “Quantum miracles and immortality,” *Transvision 2004 Conference*, University of Toronto, Toronto, <http://allanrandall.ca/tv2004.pdf>

Additional papers can be found at allanrandall.ca/papers.

RESEARCH GRANTS

- 2017-18 NSERC (National Science & Engineering Research Council of Canada): Seneca College, \$25,000
- 2017-18 OCE (Ontario Centres of Excellence): Seneca College, \$19,977

INVITED TALKS & SEMINARS

- 2007 “Leabra Advanced Workshop: using computational cognitive neuroscience to solve military problems,” Defence Research and Development Canada, Dept. of National Defence, Canadian Forces Base Suffield, February 2-4 (3-day workshop)

AREAS OF SPECIALTY

Philosophy of Science: quantum foundations, philosophy of physics, philosophy of computation
 Cognitive Science: A.I., cybernetics, neural networks & deep learning, perceptual control theory

AREAS OF COMPETENCE

PHILOSOPHY:

Logic	Ancient Philosophy
Philosophy of Mathematics	Early Modern Philosophy
Philosophy of Language	19 th and 20 th Century Continental Philosophy
Philosophy of Mind	20 th Century Analytic Philosophy
Phenomenology	Transhumanism & Emerging Technologies

COMPUTER SCIENCE:

Computability Theory	Complexity Theory
Linear Algebra	Data Analytics
Non-imperative Languages	Relational Databases
Web Programming	Modelling & Simulation
Agile Development	Human-Computer Interaction

CONFERENCE PRESENTATIONS

TALKS

- 2018 “Algorithmic Probability as a Common Foundation for Quantum Interpretation”, *American Physical Society (APS) March Meeting 2018*, 5-9 Mar., Los Angeles.
- 2016 “Allez-OOP: an object-oriented plugin for LiveCode”, *LiveCode 2016 Conference*, 2-4 Aug., Edinburgh.
- 2016 “Quantum Probability as an Application of Data Compression Principles”, *15th International Conference on Unconventional Computation and Natural Computation*, 11-15 July, *7th International Workshop on Physics and Computation*, 14 Jul., Manchester Metropolitan University, Manchester.
- 2015 “A toy algorithmic model of quantum probability”, *Quantum Probability and the Mathematical Modelling of Decision Making*, 9-11 Mar., Fields Institute, Toronto
- 2014 “Living in a cybernetic universe”, *50th Anniversary Conference of the American Society for Cybernetics*, Aug. 3-9, The George Washington University, Washington, DC
- 2014 “Designing a cybernetic curriculum”, with K. Soderholm, B. Sweeting, Y. Laouris, R. Barrera, A. Wieland, M. Stralen, J. Filho. Presented at the *Cybernetics in the Future* workshop at the *50th Anniversary Conference of the American Society for Cybernetics*, Aug. 7-8, The George Washington University, Washington, DC
- 2014 “Personal meaning and algorithmic ontologies”, *16th Biennial Conference of the Constructivist Psychology Network*, Jul. 26, Vancouver
- 2004 “Quantum miracles and immortality”, *Transvision 2004 Conf.*, 5-8 Aug., Trinity College, University of Toronto

POSTERS

- 2015 “An algorithmic information-theoretic model of quantum probability”, *Conf. on Quantum Information and Quantum Control*, 17-21 Aug., Fields Institute, Toronto
- 2014 “[Algorithmic synthetic unity: from cogito ergo sum to the Born rule in 30 easy steps](#)”, *Quantum [Un]Speakables II: 50 Years of Bell’s Theorem*, 19-22 Jun., University of Vienna
- 1988 “Stochastic relaxation and correspondence problems in object recognition”, *International Neural Network Society (INNS) 1st Annual Meeting*, 6-10 Sep., Boston

RESEARCH POSITIONS

- 2011–2014 Research Associate – Plenitude Consulting for MMT Consulting
Research on perceptual control theory, under Dr. Martin Taylor (Defence Canada scientist, retired).
- 2005–2007 Research Assistant (full-time) – NTT Systems Inc. for Defence Canada
Programming and research support for Defence Canada military scientists, including computational cognitive neuroscience, under Dr. William Fraser.
- 1997–1998 Research Assistant (part-time) – York University, Dept. of Philosophy
- 1990–1995 Research Assistant (full-time) – NTT Systems Inc. for Defence Canada
Programming and research support for Defence Canada scientists studying AI, neural networks, perceptual control, sustained operations and high-G collisions.

TEACHING EXPERIENCE

POST-SECONDARY

- 2016– Professor – Seneca College, School of Information & Communications Technology
May – Jun. 2018: Web Programming Principles (JavaScript, 2 sections, half-course)
Jan. – Apr. 2018: Web Programming Principles (JavaScript, 3 sections)
Sep. – Dec. 2017: Human Factors in Computing (2 sections)
May – Jun. 2017: Web Programming Principles (JavaScript, 2 sections, half-course)
Jan. – Apr. 2017: Web Programming Principles (JavaScript, 2 sections)
Sep. – Dec. 2016: Human Factors in Computing (1 lecture & 2 lab sections), Business Continuity Planning
- 2015–2016 Part-time/Sessional Professor – Centennial College, Information & Comm. Eng. Tech.
Jul. – Aug. 2016: Software Testing and Quality Assurance, Introduction to UNIX/Linux
Jan. – Apr. 2016: Introduction to Programming (C++, 2 sections), Software Testing Automated Tools (Visual Studio, 2 sections), Client-Side Web Development (JavaScript), Web Interface Design (HTML/CSS)
Sep. – Dec. 2015: Programming 1 (C#)
- 2004–2005 Instructor in Software Engineering – Synergy Business College
Courses: Visual Basic.NET, HTML, Access, SQL Server, UNIX Administration
- 1998 Professor of Information Technology – Canadian Information Technology College
Courses: Visual Basic, Access, SQL Server, Windows Architecture

1986-1990 Teaching Assistant - University of Alberta

Lab sections: Computer Programming for Engineers (6 sections), Introduction to Computer Programming, Computer Literacy. Marking & office hours: Advanced Programming & Data Structures, Communications & Networks. Best T.A. nomination, Dept. of Computing, 1990.

SECONDARY & MIDDLE SCHOOL

2014-2016, Teacher, Head of Science & Mathematics (2015-2016) - The Abelard School

1998-2004 Courses: Physics, Psychology, Mathematics, Computer Science, Chemistry

2007-2011 Teacher, Vice-Principal (2008-2011) - Laurel Academy Middle School

Courses: Science, Mathematics, Philosophy.

SERVICE TO THE PROFESSION

PEER REVIEW

2017 *Axiomathes* - philosophy of mind/neuroscience

2014 *Kybernetes* - philosophy of physics

2006 *Journal of Evolution and Technology* - philosophy of religion, transhumanism

SERVICE TO THE COMMUNITY

2011- Co-Director and Co-Founder - Humanity Centre for Philosophy, Toronto

2008- Co-Director and Secretary - Cryonics Society of Canada

2008 "Cryonics: Present and Future," Public Lecture, Centre for Inquiry Ontario, Toronto, 8 Mar., 5-7 PM

2006 "Introduction to the Ethics and Science of Cryonics," Public Lecture, Bahen Centre for Information Technology, University of Toronto, 6 Apr., 7-8 PM

2003 "Gödel's Theorem", Guest Lecture for "Current Questions in Math and Science" course, University of Toronto, Dept. of Physics, 1 Apr. 2003, 4-5 PM

2003 Organizer & Moderator - Expert Panel Discussion on Science & Ethics of Cryonics First Unitarian Congregation of Toronto, Toronto, 9 Nov., 1:-2:30 PM

MEDIA COVERAGE

Media coverage/interviews (web, print, television) on quantum mechanics, science & spirituality, life extension. Toronto Life, Yahoo.Ca, Discovery Channel, TVO, CBC, ImmInst.Org.

PROFESSIONAL MEMBERSHIPS

Philosophy of Science Association
American Physical Society
Association for Computing Machinery
International Neural Network Society
Humanity+