

Brief CV of Kevin A. Broughan

Tertiary Education Record

BSc University of Auckland 1967
MSc University of Auckland 1968 (First Class Honours)
MA Columbia University 1970
MPhil Columbia University 1975
PhD Columbia University 1975

Employment History

Senior Science and Mathematics Teacher, St Paul's College, Auckland, 1967,
Junior Lecturer, University of Auckland, 1968
Teaching Assistant, Columbia University, 1969-1970
Lecturer in Mathematics, University of Waikato, 1971-1974,
Senior Lecturer, 1975-1988,
Associate Professor, 1989-2009
Chairperson of Mathematics, University of Waikato, 1996-2001
Professor of Mathematics 2010-

Personal

Member of the Marist Brothers order, 1962-1970.
Married to Jackie with two children Jude and Beck and one grandchild Grey.
Hobbies include swimming, gardening, choral singing and public issues.

Miscellaneous

- Research in topology, mathematical software, dynamical systems and number theory,
- Founding the NZ Mathematical Society (with David Vere-Jones and Don Joyce),
- Inspiring the internet connection to NZ with Waikato as the hub (by John Houlker),
- Establishing the School of Computing and Mathematical Sciences (with Mark Apperley, Colin Beardon, Ian McLaren, and Keith Hopper),
- Developing a mathematical software environment (with Wayne Schou, Dianne Koorey, Martin Glanvill, and Nan Zhu),
- Optimizing the power generated from the Waikato river system (for ECNZ with Alfred Sneyd),
- Establishing Waikato engineering degrees (with Howell Round, Mike Walmsley and Conan Fee),
- Doubling the student enrolment in the Department of Mathematics while Chair (with Alfred Sneyd, Stephen Joe and many others).

Distinctions:

Dux of St. Bernard's College, 1960, 1961
Credit Pass, NZ University Scholarship Examination, 1960
NZ University National Scholarship, 1961
Applied Mathematics Prize, University of Auckland, 1965
Senior Scholarship in Mathematics and Physics, University of Auckland, 1966
Sir George Grey Scholarship, University of Auckland, 1966
Fulbright Award for study in the United States, 1968

UGC Postgraduate Scholar in Science, 1968
Faculty Fellowship, Columbia University, 1968
Columbia Ph.D. Qualifying Examination passed with Distinction, 1969
Faculty Fellowship, Columbia University, 1974-75
Senior Visiting Fellow, Cambridge University, DAMPT, 1980
Consultant to the research project on the Representation and
Manipulation of Mathematical Knowledge, University of California
at Berkeley, Center for Pure and Applied Mathematics 1983-84
New Zealand Computer Software Award for Senac 1991
Steering Committee for High Performance Computing - Asia conference
series 1994-98
Programme Committee for International Conference on Symbolic and
Algebraic Computation 1995
Visiting Professor, Department of Mathematics, Columbia University 1999,2002
Fellow of the New Zealand Mathematical Society, elected 2001
Claude-McCarthy Fellowship 1994, 2004.
Invitation to chair a session on number theory at ICM2006, Madrid.
Invited participation in the American Institute of Mathematics workshop on the
computational aspects of L-functions and modular forms, 2007.
University of Waikato Fulbright Adviser 2007-2010.
Joint organizer of a special session on Number Theory, joint NZ Australian Mathematics
Convention, Christchurch, 2008.

Memberships of Scholarly and Professional Societies:

American Mathematical Society (AMS),
New Zealand Mathematical Society (NZMS), designation FNZMS
Institute for Professional Engineers of New Zealand (IPENZ) designation M.IPENZ,

Contracts:

Deed of Assignment for the Naglink software system, Development Finance
Corporation and University of Waikato, 1984-87
Naglink Agreement for the distribution of the Naglink software system,
Numerical Algorithms Group and Development Finance Corporation, 1986
Developer Software Agreement for the use of Franz Lisp and Allegro CL
in distributed versions of SENAC, with Franz Inc (Berkeley), 1989
Software Distribution Agreement for the distribution of SENAC in UK/Europe
with the University of London, 1990
Software Distribution Agreement for the distribution of SENAC in North
America, with Mitchell and Gauthier Associates (Concord), 1990
Royalty sharing agreement for software and services with the Numerical
Algorithms Group (Oxford), 1990.
Agreement with Numerical Recipes authors for the right to translate into
Lisp and use Numerical Recipes code in Senac, 1992.
Water Management Software research contract with ECNZ, 1992-1994.
Timetable Study for the University of Waikato, 1998.

Special activities:

Academic staff representative on the University of Waikato Council (5 years), Member
University Finance Committee (4 years), Member University Academic Board (14 years),
Branch Chair of AUS (2 years) and National VP of AUS (1 year). Member of the

Hillcrest Normal School Committee (2 years). Branch chair of the Rufus Rogers Branch of the NZLP (1 year), Member of the Economic Policy Committee of the NZLP (1+ years).

Mathematical and other work:

For recent publications and preprints see the Research link on my home page.

For recent letters to the editor and submissions see the link on my home page.

Kevin A. Broughan

17th October 2013.