

Keith John WORSLEY

CURRICULUM VITAE 1951–2009

Academic background

1978 Ph.D. in Mathematical Statistics, Auckland University, New Zealand, under the supervision of Professors A.J. Scott and G.A.F. Seber. Thesis title: *Significance Testing in Automatic Interaction Detection (A.I.D.)*

1973 M.Sc. with first-class honors in Mathematics and Statistics, Auckland University, New Zealand

1972 B.Sc. in Mathematics and Physics, Auckland University, New Zealand

Academic experience

2008–2009 Full Professor. Department of Statistics, University of Chicago.

2004–2009 James McGill Professor. Department of Mathematics and Statistics, McGill University.

1998–2009 Associate Member, Department of Neurology and Neurosurgery, McGill University.

1994–2009 Full Professor. Department of Mathematics and Statistics, McGill University.

1984–1994 Associate Professor. Department of Mathematics and Statistics, McGill University.

1985–1986 Professeur Associé. Laboratoire de Statistique et Probabilité, Université Paul Sabatier, Toulouse, France.

1978–1984 Assistant Professor. Department of Mathematics, McGill University.

Teaching

From 1978 onward, four courses per year (40 hours of lectures per course) including: introductory probability and statistics (with and without calculus); regression; generalized linear models (taught in English and French); sample surveys; spectral analysis of time series; multivariate statistics; geometry of random fields (readings course), parameterized variance models (since 2000, 2 courses per year).

Contributions to the Training of Highly Qualified Personnel

Principal or joint supervisor:

1. **Farzan ROHANI**, PhD, 2004–2009, *Random fields*.
2. **Nicholas CHAMANDY**, PhD, 2004–2007, *Classification of random field data*, (joint with Russell Steele), now at Google, Inc.
3. **Mohammed AL-ODAT**, PhD, 2001–2009, *Applications of random field theory to the survival analysis of MS lesions from 3D MRI images*, (joint with Alain Vandal).
4. **Jonathan TAYLOR**, PhD, 1998–2001, *Euler characteristics for Gaussian fields on manifolds* (joint with Robert Adler, Technion, Israel), now Assistant Professor, Department of Statistics, Stanford.
5. **John ASTON**, PhD, 1999–2002, *Statistical methods for functional neuroimaging data* (joint with Roger Gunn, Imperial College, London, and MNI, McGill), now Research Fellow, US Census Bureau.
6. **Moo CHUNG**, PhD, 1998–2001, *Statistical morphometry in neuroanatomy* (joint with Jim Ramsay, Psychology), now Assistant Professor, Department of Statistics, University of Wisconsin at Madison.
7. **Madon AWISSI**, MSc, 1998–2001, *Détection dans les images IRM d'un signal par la méthode des ondelettes*. (joint with Brenda MacGibbon, UQAM), now Chargée de Cours, Département de Mathématiques, Université de Québec à Moncton.
8. **Chuanhong LIAO**, MSc, 1999–2001, *Estimating the delay of the hemodynamic response in fMRI data*, now Senior Statistician, JSS Medical Research, Montreal.
9. **Carine BELLERA**, MSc, 1999–2001, *Detecting heritability of brain structure using magnetic resonance imaging*, now Statistician, Montreal General Hospital.
10. **Li MA**, MSc, 1997–1999, *Inference for localized signals in a Gaussian random field, with applications to brain mapping*, now graduate student in Computer Science, McGill.
11. **Khalil Shafie**, PhD, 1994–1998, *The geometry of Gaussian rotation space random fields*, now Professor of Statistics, Shahid Beheshti University, Tehran, Iran.
12. **Jin Cao**, PhD, 1994–1997, *Excursion sets of random fields with applications to human brain mapping*, now researcher at Bell Laboratories (Lucent Technologies), Murray Hill, New Jersey.

Thesis Committee:

13. **Michel Ades**, PhD, 1990–1997, supervisor Peter Caines (Electrical Engineering)
14. **Lishuen Fu**, PhD, 1993–1998, supervisor Tina Wolfson (Epidemiology and Biostatistics)

Postdoctoral fellows:

15. **Ester Yan**, Postdoctorate, 1997, *Analysis of brain images*
16. **Craig Liu**, Postdoctorate, 1996–1997, *Analysis of brain images*

Awards, Fellowships and Research Fellowships

- Gold Medal, Statistical Society of Canada, 2004.
- Royal Society of Canada, Fellowship, 2003–2009.
- Killam Research Fellowship, *Statistics of Brain Mapping*, 2000–2002.

Editorial boards

- *NeuroImage* 1995–2009, Methods Section Editor 2005–2009
- *Human Brain Mapping* 1995–2009
- *Annals of the Institute of Statistical Mathematics* 2003–2009
- *Biometrics* 2004–2009
- *Annals of Statistics* 2006–2009
- *Statistica Sinica* 2006–2008
- *Atlantic Electronic Journal of Mathematics* 2006–2009
- *Journal of Mathematical Imaging and Vision* 2007–2009
- *Sankhya, Series B* 2008–2009

Conference boards

- Organization for Human Brain Mapping, Elected Chair of Program Committee, Chicago, June 2007, and Sydney, June 2008.
- Bernoulli Society World Congress and Institute of Mathematical Statistics Annual Meeting (BCIMS08), Program Committee, Singapore, July 2008.