

# CV

## Education and Employment

### **Employment:**

- January 2008 - current: Assistant Professor, University of Ottawa.
- August 2006 - December 2007: Lecturer, University of Sydney, Australia.
- January 2006 - August 2006: Postdoctoral fellow, Carleton University.
- September 2003 - December 2005: Postdoctoral fellow, University of Ottawa.
- 2002 - 2003: Assistant Professor, University of Wrocław, Poland.

### **Education:**

- September 2002: Ph.D. (supervised by Ryszard Szekli), title: *Dependence properties associated with dependence orderings for stochastic models based on point processes.*
- 1998 - 2002: Ph.D. student - University of Wrocław.
- September 1998: M.Sc. (supervised by Ryszard Szekli).
- April 1998 - September 1998: student - University of Ulm, Germany.
- 1993 - 1998: student - University of Wrocław.

### **Advanced Courses and Summer Schools taken:**

- Concentrated Advanced Course: Long Range Dependence and Heavy Tails, Copenhagen, Denmark, May 2002.
- Summer School on Stochastic and Finance, Barcelona, Spain, September 2001.
- Course on Spatial Point Processes, Aalborg, Denmark, August 2001.
- Summer School on Mathematical Finance, Będlewo, Poland, July 2001.
- Concentrated Advanced Course on Monte Carlo Methods in Financial Engineering, Aarhus, Denmark, May 2001.
- Stochastic Analysis, Lund, Sweden, February 2000.
- Summer Probability School, Saint Flour, France, July 1999.

## Academic-related honours, grants, awards and scholarships

### **Visiting Positions**

- Visiting Professor at the University Paris X Nanterre, May - June 2009.

### **Grants**

- NSERC grant 2008-2013. Value: \$80,000.
- *Research in Pairs* at Banff International Research Station, 2009. Values: \$1,500. Covers accommodation, board and local expenses. Jointly with Justin Wishart, University of Sydney, Australia.
- Start-up funds - University of Ottawa. Value: \$20,000.
- Start-up funds - University of Sydney. Values: AUD3000.
- KBN-DAAD (Deutscher Akademischer Austauschdienst), two grants: 2003-2004, 2005-2006, with R. Szekli - main applicant, P. Lorek (University of Wrocław), H. Daduna - main applicant, C. Malchin, M. Schwartz, C. Sauer (University of Hamburg).

### **Awards and Scholarships**

- KBN (Polish State Committee for Scientific Research) - PhD grant, 2002.
- TEMPUS (European Commission grant), Lund University, Sweden, February 2000.
- GFPS-Fellowship (Gemeinschaft zur Förderung von Studienaufenthalten polnischer Studierender in Deutschland), Ulm University, Germany, April - September 1998.
- 2nd prize - "Student Thesis in Applied Probability and Statistics", Poland, December 1998.

## Scholarly and Professional Research Activities

This part includes:

- organization of Workshops and Conferences,
- refereeing services,
- book reviews,
- a list of conference presentations and seminar talks.

### **Organization of Workshops and Conferences**

- Statistical Society of Canada conference, Acadia University, Wolfville, NS, Canada. Session organizer. June 12-15, 2011.
- Statistical Society of Canada conference, Quebec City, Canada. Session organizer. May 23-26, 2010.
- Workshop on Recent Advances in Asymptotic Probability and Statistics, University of Sydney, Australia. Organizer. December 8-10, 2007.
- The Sydney Summer Statistics Workshop, Sydney, Australia. Organizer. February 2007.
- Fields Institute Workshop on Point Processes, University of Ottawa, Canada. Co-organizer (with Andre Dabrowski and Gail Ivanoff). February, 2004.
- Applied Probability and Advanced Communications Networks Conference, Będlewo, Poland. Organizer. May, 2003.

### **Refereeing services**

Referee for *Annals of Statistics*, *Applicaciones Mathematicae*, *Bernoulli*, *Bulletin of the Korean Mathematical Society*, *Canadian Journal of Statistics*, *Communications in Statistics: Simulation and Computation*, *Communications in Statistics: Stochastic Models*, *Computational Statistics*, *Computers and Mathematics with Applications*, *International Journal of Statistics and Management Systems*, *Journal of the Royal Korean Society*, *Journal of Statistical Planning and Inference*, *Journal of Stochastic Analysis and Applications*, *Mechanical Systems and Signal Processing*, *Optimization Letters*, *Queueing Systems*, *Statistica Sinica*, *Stochastic Processes and their Applications*, *Stochastics*.

### **Book reviews**

- Meister, *Deconvolution Problems in Nonparametric Statistics*, Springer, 2009.
- Bluman and Mayer, *Elementary Statistics*, 2nd Canadian Edition, McGraw-Hill.

## Conference Presentations and seminar talks (other than research seminars in my own affiliations)

- "Empirical processes under dependence". Presented at Statistical Society of Canada Conference, Quebec City, Canada, (May 2010). Invited talk.
- "Tail empirical process for some long memory sequences". Presented at
  - Modeling Spatial and Temporal Dependence Workshop, Luminy, France, (April 2010). Invited talk.
- "Residual analysis in regression models with long memory". Presented at
  - International Conference on Probability and Statistics, Vishakhapatnam, Andhra Pradesh, India, (December 2010). Invited talk.
- "Panorama of limits for long memory processes". Presented at
  - Canadian Mathematical Society conference, Windsor, Ontario, Canada, (December 2009). Invited talk.
- "Wavelet regression in random design with heteroscedastic dependent errors". Presented at
  - IMS Asia Pacific Rim Meeting, Seoul, South Korea, (June 2009).
  - Seminar, University of Konstanz, Germany, (May 2009).
  - International Conference on Nonparametric Methods for Measurement Error Models and Related Topics, Carleton University, Ottawa, Canada, (May 2009). Invited talk.
  - Conference on Mathematical Statistics, Luminy, France, (December 2008). Invited talk.
- "Adaptive wavelet regression in random design for long memory processes". Presented at
  - Canadian Mathematical Society Conference, Ottawa, Canada, (December 2008). Invited talk.
- " $L^p$  wavelet regression with correlated errors." Presented at Stochastics Day, Carleton University, Ottawa, Canada, (April 2008). Invited talk.
- "Wavelet regression in random design for long memory processes". Presented at
  - 7th World Congress in Probability and Statistics, Singapore, (July 2008).
  - STATDEP 2008 : Statistics for Dependent Data, Paris, France, (June 2008).
  - International Workshop on Recent Advances in Time Series Analysis, Protaras, Cyprus, (June 2008).
- "Poisson limits for empirical point processes". Presented at Statistical Society of Canada Conference, Ottawa, Canada, (May 2008). Invited talk.
- "Empirical process of long-range dependent sequences when parameters are estimated". Presented at:
  - Macquarie University, Sydney, Australia, (October 2007).
  - Workshop on Recent Advances in Asymptotic Probability and Statistics, Sydney, Australia, (December 2007).
- "Sample quantiles for long range dependent sequences". Presented at:
  - Seminar, University of New South Wales, Sydney, Australia, (October 2007).
  - Seminar, Carleton University, Ottawa, Canada, (April 2006).
- "Sums of extreme values of subordinated long-range dependent sequences: moving averages with finite variance". Presented at:
  - Sydney Summer Statistics Workshop, University of Technology, Sydney, Australia, (February 2007).
  - Seminar, University of Heidelberg, Germany, (December 2006).
  - Seminar, Hamburg University, Center of Mathematical Statistics and Stochastic Processes, Germany, (December 2006).

- Australian Mathematical Society Conference, Sydney, Australia, (September 2006). Invited talk.
- Probability-Statistics Days on Lorenz-Gini Type Asymptotic Methods in Statistics and their Applications, Carleton University, Ottawa, Canada, (September 2006). Invited talk.
- "Bahadur-Kiefer theory for weakly dependent random variables". Canadian Statistical Society Conference, London, Ontario, Canada, (June 2006). Invited talk.
- "Tail Behaviour of the Area under Queue Length Process of a Single Server Queue with Regularly Varying Service Times". INFORMS Applied Probability Conference, Ottawa, Canada, (July 2005).
- "Rate of convergence in invariance principle for dependent sequences". Statistical Society of Canada Conference, Saskatoon, Canada, (June 2005).
- "Invariance principles for self-normalized sequences". High Dimensional Probability Conference, Santa Fe, NM, USA, (June 2005).
- "Introduction to point processes". Workshop on Forest Fires and Point Processes, The Fields Institute, Toronto, Canada, (May 2005). Invited speaker.
- "Tail asymptotics for sums of dependent random variables". Seminar, Laval University, Quebec, Canada, (November, 2004).
- "Dependence Ordering of Markov Processes". Dependence Modeling in Insurance and Finance, Quebec, Canada, (May 2004).
- "Dependence Ordering of Markov Processes and Queueing Networks". Statistical Society of Canada Conference, Montreal, Canada (May 2004).
- "Area under queue length process and heavy tails". Seminar, Hamburg University, Center of Mathematical Statistics and Stochastic Processes, Germany, (June 2004).
- "Introduction to point processes". Workshop The Point of Point Processes, University of Ottawa and The Fields Institute, Ottawa, Canada (February 2004). Series of lectures.
- "Dependence Orderings for some functionals of multivariate point processes". Presented at:
  - Applied Probability and Advanced Communications Networks, Będlewo, Poland, (May 2003).
  - Conference on Queueing Systems, Madrid, Spain, (July 2002).

## Students Supervision

### **Supervision of Postdoctoral Students**

- Paweł Lorek, September 2008 - June 2010. Jointly with David McDonald.

Current position: Assistant Professor, University of Wrocław, Poland.

Project outcome: We wrote jointly two papers, one has been accepted to *Journal of Statistical Planning and Inference*, the second one is being revised for *Annals of Statistics*. These two papers deal with limit theorems for long memory processes. Dr. Lorek wrote two other paper on speed of convergence of Markov processes, which was based mainly on his work with David McDonald.

### **Supervision of Graduate Students**

- Stella Nansukusa (M.Sc.), September 2008 - August 2010 (Defended her thesis on August, 16, 2010). Jointly with Mayer Alvo.

Project title: *Analysis of malaria and HIV/AIDS data from the 2006 Uganda demographic health survey.*

- Ling Luo (M.Sc.), September 2008 - June 2011, in progress (a break due to maternity leave). Jointly with Mahmoud Zarepour.

Project title: *Value-At-Risk for Dependent Heavy Tailed Data.*

- Luk Arbuckle (M.Sc.), September 2008 - September 2010. Jointly with Mahmoud Zarepour.

Project title: *Short-Term Occupancy Prediction at the Ottawa Hospital.*

- Thi Lam Uyen Hoang (M.Sc.), to begin in September 2010. Jointly with Mahmoud Zarepour.
- James Younker (M.Sc.), to begin in September 2010. Employed at the Bank of Canada.

Project title: *An examination of the tradeoffs between various shrinkage/dimension reduction methods with applications to financial/economic foresting.*

- Kevin Tong (M.Sc.), to begin in September 2010. My former USRA student.
- Joanna Soltyszcak (M.Sc.), October 2002 - June 2003, University of Wrocław, Poland.<sup>1</sup>

Project title: *Net premiums and risk reserves in life insurance.*

Current position: Works for a bank in Poland.

- Anna Niewczak (M.Sc.), October 2002 - June 2003, University of Wrocław, Poland.

Project title: *Net premiums and risk reserves in non- life insurance.*

Current position: Works for a bank in Poland.

- Malgorzata Zelek (M.Sc.), October 2002 - June 2003, University of Wrocław, Poland.

Project title: *Option Pricing via Simulations.*

Current position: Works for a bank in Poland.

#### **Supervision of Honours Students**

- Joanna Wang (Honours), January 2007 - December 2007, University of Sydney, Australia.

Project title: *Extreme Value Theory for Dependent Sequences.*

Current position: PhD student at the University of Sydney.

#### **Supervision of Undergraduate Students**

- Kevin Tong (NSERC USRA), Summer 2009.

Project title: *Introduction to Time Series Analysis.*

Current position: M.Sc. student at the University of Ottawa (under my supervision).

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<sup>1</sup>Please note that in 2002 the system in Poland was different as compared to Canada. Those M.Sc. programs should be compared with our one year M.Sc. with a project.

## Administrative Service

### **Selected administrative Service at the University of Ottawa**

- Creation of a new undergraduate program *Financial Mathematics and Economics*; together with Barry Jessup, Monica Nevins (Department of Mathematics and Statistics), Victoria Barham, David Gray (Department of Economics), Alan Riding, Anna Dodonova (TELFER). The program will be launched in September 2011.
- System Science coordinator 2010/2011.
- Preparation of a report on feasibility of Actuarial Program at the University of Ottawa, 2010.
- Development of an online database of French questions for elementary statistics courses, like MAT2711, MAT2775, MA2777 and MAT2779 (jointly with Gilles Lamothe); June 2010 - April 2011.
- Presentation on R at the Student Research Day; organized jointly by the University of Ottawa and Statistical Society of Ottawa, September 2009 and 2010.
- University of Ottawa Day talks and kiosk, 2008.

### **Service on Examination Board**

- L. Dumitrescu (PhD 2010), University of Ottawa. Supervisors: Raluca Balan and Ioanna Schiopu-Kratina.
- F. Elktaibi (M.Sc. 2010), University of Ottawa. Supervisor: Gail Ivanoff.
- M. M. Nasari (PhD 2010), Carleton University. Supervisors: Miklos Csorgo and Majid Mojirsheibani.
- A. Dasyuva (M.Sc. 2009), Carleton University. Supervisor: Sanjoy Sinha.
- S. M. Roknossadati (PhD 2008), University of Ottawa. Supervisor: Mahmoud Zarepour.

### **Administrative Service elsewhere**

- Technical consultant for the textbook: Bluman and Mayer, *Elementary Statistics*, 2nd Canadian Edition, McGraw-Hill.
- Statistics Honours students coordinator, University of Sydney, Australia.
- Secretary of the Polish Mathematical Society, 2001–2003.