

Curriculum Vitae

July 14, 2009

:: PERSONAL DATA

Name: **Peter**
Surname: **Jacko**
Gender: **Male**
Date of Birth: **June 23, 1980**
Place of Birth: **Košice, Slovakia**
Family Status: **Single**
Webpage: **<http://www.bcamath.org/jacko>**

:: CONTACT DATA

Office: **Basque Center for Applied Mathematics
Bizkaia Technology Park
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:: EDUCATION

GRADUATE

- Ph.D. cum laude, *Business Administration and Quantitative Methods* 2009
- Universidad Carlos III de Madrid, Spain
 - Thesis: *Marginal Productivity Index Policies for Dynamic Priority Allocation in Restless Bandit Models*
 - Advisor: prof. José Niño-Mora
- DEA (M.Sc. equivalent), *Statistics and Operations Research* 2006
- Universidad Carlos III de Madrid, Spain
 - 65 credits (equivalent to 120 ECTS credits) in coursework (2003 – 2005)
 - Thesis: *Mathematical Programming Approach to Dynamic Resource Allocation Problems*
 - Advisor: prof. José Niño-Mora
- Mgr. (M.Sc. equivalent), *Mathematics* 2003
- P. J. Šafárik University in Košice, Slovakia
 - 120 ECTS credits in coursework (2001 – 2003)
 - Thesis: *Distance Colorings of Graphs*
 - Advisor: prof. Stanislav Jendrol'

UNDERGRADUATE

- Bc. (B.Sc. equivalent), *Mathematics* 2002
- P. J. Šafárik University in Košice, Slovakia
 - 180 ECTS credits in coursework (1998 – 2002)

:: RESEARCH

INTERESTS

Resource Allocation under Uncertainty (Bandit Problems)
Markov Decision Processes
Optimization in Graphs and Networks
Applications to Telecommunications and Business Administration

METRICS

H-index: 1

Erdős number: 3

source: Publish or Perish, 2008

source: MathSciNet Calculator, 2008

WORK IN PROGRESS

- P. Jacko and J. Niño-Mora. An index policy for dynamic product promotion and the knapsack problem for perishable items. Universidad Carlos III de Madrid, Working paper 09-31, Statistics and Econometrics Series 11, May 2009.
- P. Jacko and J. Niño-Mora. Marginal productivity index policies for problems of admission control and routing to parallel queues with delay. Universidad Carlos III de Madrid, Working paper 08-72, Statistics and Econometrics Series 25, December 2008.
- P. Jacko, J. Niño-Mora, and B. Sansò. Network-capability fairness through anticipative congestion control. In preparation, Available upon request, 2008.

PUBLICATIONS

- P. Jacko and J. Niño-Mora. Admission control and routing to parallel queues with delayed information via marginal productivity indices. In *Proceedings of the Third International Conference on Performance Evaluation Methodologies and Tools (ValueTools)*, ACM International Conference Proceeding Series. ICST Gent, 2008.
- P. Jacko and B. Sansò. Congestion avoidance with future-path information. In *Proceedings of the EuroFGI Workshop on IP QoS and Traffic Control*, pages 153–160. IST Press, 2007.
- P. Jacko and J. Niño-Mora. Time-constrained restless bandits and the knapsack problem for perishable items (extended abstract). *Electronic Notes in Discrete Mathematics*, 28:145–152, 2007.
- P. Jacko and S. Jendrol'. Distance coloring of the hexagonal lattice. *Discussiones Mathematicae Graph Theory*, 25 (1-2):151–166, 2005.

CONFERENCE PRESENTATIONS

- P. Jacko* and J. Niño-Mora. Admission control and routing to parallel queues with delayed information via marginal productivity indices. Third International Conference on Performance Evaluation Methodologies and Tools (ValueTools); Greece, October 2008. Acceptance rate 30/75.
- P. Jacko*. Optimal dynamic promotion and the knapsack problem for perishable items. VIIIth Annual Conference of INFORMS Revenue Management and Pricing Section; Canada, June 2008. Awarded a MITACS Student Grant; among 5 out of 16 submissions; 1000 CAD.
- P. Jacko* and B. Sansò. Congestion avoidance with future-path information. EuroFGI Workshop on IP QoS and Traffic Control; Portugal, December 2007.
- P. Jacko* and J. Niño-Mora. Time-constrained restless bandits and the knapsack problem for perishable items. Sixth Czech-Slovak International Symposium on Combinatorics, Graph Theory, Algorithms and Applications, Czech Republic, July 2006.
- P. Jacko* and S. Jendrol'. Some bounds for labeling with a condition at distance two. 1st Workshop on Frequency Assignment Problems in Wireless Networks; Italy, October 2005.
- S. Jendrol'* and P. Jacko. Distance coloring of the hexagonal lattice. 10th Workshop on Graph Theory Colourings, Independence and Domination; Poland, September 2003.
- P. Jacko and A. Marcinová*. The distance colouring of regular tilings of the plane. Graphs 2002; Czech Republic, May 2002.

SEMINARS

- P. Jacko*. An index policy for congestion control in routers with future-path information. Basque Center for Applied Mathematics, Spain, June 2009a.
- P. Jacko*. Marginal productivity index policies for dynamic priority allocation in restless bandit models. Universidad Carlos III de Madrid, Spain, May 2009b.
- P. Jacko*. Restless bandit problem, priority indices, and admission control. GERAD, Canada, May 2007a.
- P. Jacko*. Optimal food promotion and the knapsack problem for perishable items. Universidad Carlos III de Madrid, Spain, March 2007b.
- P. Jacko*. Mathematical programming approach to dynamic resource allocation problems. Universidad Carlos III de Madrid, Spain, December 2005.

INTERNATIONAL PROJECTS

- “EURO-FGI: Design and Engineering of the Future Generation Internet — Towards Convergent Multi-Service Networks” 2006 – 08
- European Commission; Local PI: J. Niño-Mora; participant
- “EURO-NGI: Design and Engineering of the Next Generation Internet Towards Convergent Multi-Service Networks” 2003 – 06
- European Commission; Local PI: J. Niño-Mora; participant

NATIONAL PROJECTS

- “Modelos de Ayuda a la Toma de Decisiones en Presencia de Incertidumbre” 2009 – 09
- Comunidad de Madrid-UC3M, Spain; PI: F. J. Nogales; participant
- “Optimización de Sistemas de Grandes Dimensiones Mediante Programación Matemática” 2008 – 08
- Comunidad de Madrid-UC3M, Spain; PI: J. Niño-Mora; participant
- “Métodos y Modelos de Optimización para Sistemas Dinámicos y Estocásticos” 2007 – 10
- Ministerio de Educación y Ciencia, Spain; PI: J. Niño-Mora; participant
- “Modelos de Optimización Dinámica, Estocástica y Combinatoria de Sistemas Tecnológicos, Logísticos y Financieros” 2007 – 08
- Comunidad de Madrid-UC3M, Spain; PI: J. Niño-Mora; participant
- “Modelos de Optimización Dinámica Estocástica y Combinatoria de Sistemas Productivos, Logísticos y Financieros” 2006 – 06
- Comunidad de Madrid-UC3M, Spain; PI: J. Niño-Mora; participant
- “Métodos, Formulaciones y Algoritmos para la Solución de Modelos de Optimización Dinámicos y Estocásticos Mediante Programación Matemática” 2004 – 07
- Ministerio de Educación y Ciencia, Spain; PI: J. Niño-Mora; participant

RESEARCH STAYS

- GERAD, HEC Montréal, Canada 4 months in 2007; 1 week in 2008
- collaboration with prof. Brunilde Sansò

:: EXPERIENCE

REFEREEING

- European Journal of Operational Research
- International Journal of Mobile Network Design and Innovation
- International Conference on New Technologies, Mobility and Security 2008

TEACHING ASSISTANTSHIPS

- Department of Statistics, Universidad Carlos III de Madrid, Spain 2005 – 2009
- Winter 2006/2007: Investigación Operativa (Operations Research), graduate course
 - Fall 2006/2007: Investigación Operativa (Operations Research), Spanish group
 - Winter 2005/2006: Investigación Operativa (Operations Research), graduate course
 - Fall 2005/2006: Investigación Operativa (Operations Research), two Spanish groups
- Department of Business Administration, Universidad Carlos III de Madrid, Spain 2003 – 2005
- Fall 2004/2005: Economía Financiera (Financial Economics), two Spanish groups
 - Fall 2004/2005: Análisis Contable (Accounting Analysis), English group
 - Spring 2003/2004: Gestión Financiera (Financial Management), Spanish group
 - Fall 2003/2004: Economía Financiera (Financial Economics), English group

VOLUNTARISM

- Nadácia Ingenium (Ingenium Foundation), Slovakia 2001 – 2007
- founding *executive board member* (2001 – 2007)
- Združenie STROM (STROM Association), Slovakia 1995 – 2004
- *president and member of executive board* (2000 – 2003)
 - co-organizer of math contests, meetings and summer/winter schools

:: GRANTS AND AWARDS

- Dept. of Statistics Logo Design Contest winner (with Dae-Jin Lee), Univ. Carlos III de Madrid, Spain 2008
- Student Grant, MITACS, Canada; 1000 CAD 2008
- Research Personnel Formation (FPI) Fellowship, Ministry of Education and Science, Spain 2005
- Student Grant, CRM, Canada; 1000 CAD 2004
- Teaching Assistant Fellowship, Universidad Carlos III de Madrid, Spain 2003, 2004
- The Praise Appreciation of Dean, P. J. Šafárik University in Košice, Slovakia 2003
- The Prize of Rector on occasion of the Students' Day, P. J. Šafárik University in Košice, Slovakia 2001

:: SKILLS AND ABILITIES

LANGUAGES

- English, Spanish — immersion in 2003
- German, Russian — basic level
- Slovak, Czech — native

COMPUTERS

- Programming — extended skills in Matlab, Maple, Xpress-MP, T_EX, Pascal, Delphi, HTML/CSS, PHP