JEAN LEMAIRE
CURRICULUM VITAE

EDUCATION

BS, Applied Mathematics, 1969, Summa Cum Laude, Université Libre de Bruxelles (U.L.B.)
Teaching Certificate, 1969, Summa Cum Laude, U.L.B.
MS, Actuarial Science, 1972, Summa Cum Laude, U.L.B.
Ph.D., Mathematics, 1973, Summa Cum Laude, U.L.B.
Associate, Society of Actuaries, 1997

EMPLOYMENT

1980-1983: Associate Professor of Statistics and Actuarial Science, U.L.B.
1987-: Professor of Insurance and Actuarial Science, Wharton School. Julian Aresty
Professor (2005), Harry J. Loman Professor (2007).

PRIZES AND AWARDS

1979: First Prize, Belgian National Fund for Scientific Research Mathematics Competition. “Pour
une réforme de l'assurance automobile en Belgique.”
1980: First Prize, Boleslaw Monic International Reinsurance Competition (with J.M. Reinhard and
1988: International INA-Lincei Prize, Italian Academy of Sciences
2000: Robert Witt Research Award, Best Feature Article in the J. of Risk and Insurance (with K.
Subramanian, K. Armstrong, J. Hershey, M. Pauly, D. Asch).
HONORARY DESIGNATIONS

1986: Honorary Member, French Association of Actuaries
1987: Honorary Member, Swiss Association of Actuaries
1989: Honorary Member, Italian Association of Actuaries
2001: Honorary Fellow, British Institute of Actuaries
2008: Lifetime Honorary Chairman, ASTIN

TEACHING AWARDS

Wharton Hauck Award for Excellence in Teaching by a Tenured Faculty Member, 2008

VISITING PROFESSOR


BOOKS

Automobile Insurance: Actuarial Models
   French: Fernand Nathan, 1983, 178 pages
   Spanish: Centro de Estudios del Seguros, Madrid, 1996, 278 pages
   Korean: Korea Insurance Development Institute, 1996, 186 pages

Bonus-Malus Systems in Automobile Insurance

Insurance Regulation in Europe and the United States (with K. Subramanian)
   English: Huebner Foundation Monograph, 1997, 152 pages
   Spanish: Universidad de la Republica, Montevideo, 1998, 143 pages

Encyclopedia of Actuarial Science (as one of 12 editors)
   John Wiley and Sons, Chichester, UK, 2004, 1,842 pages
JOURNAL ARTICLES

Jeux récursifs: critères de détermination de ε pour les stratégies ε-optimales. *CERO*, 12, 1970, 110-113

Optimalité d'un contrat d'échange de risques entre assureurs. *CERO*, 15, 1973, 139-156


Sur l'emploi des fonctions d'utilité en assurance. *BARAB*, 70, 1975, 64-73

Si les assurés connaissaient la programmation dynamique. *BARAB*, 70, 1975, 54-63


Echange de risques entre assureurs et théorie des jeux. *ASTIN*, 9, 1977, 155-180

La soif du bonus. *ASTIN*, 9, 1977, 181-190


A Non Symmetrical Value for Games without Transferable Utilities. Application to Reinsurance. *ASTIN*, 10, 1979, 195-214


How to Define a Bonus-Malus System with an Exponential Utility Function. *ASTIN*, 10, 1979, 274-282

Equilibrage d'un marché de réassurance (with M. Loréa). *ASTIN*, 11, 1980, 107-118
The Core of a Reinsurance Market (with B. Baton). *ASTIN*, 12, 1981, 57-71
Fonctions d'utilité et assurance. *Revue belge de statistique, d'informatique et de recherche opérationnelle*, 21, 1982, 43-65
Calcul des primes et marchandage (with D. Briegleb). *ASTIN*, 13, 1982, 115-131
Analyse économique d'un procès entre un plaignant et une compagnie d'assurances. *Blätter der DGVM*, 16, 1983, 21-29
Une propriété du principe de l'espérance mathématique (with E. Vandermeulen). *Bull. Trimestriel Institut Actuaires Francais*, 323, 1983, 5-14
A Model to Evaluate the Rebuilding Cost of Dwellings (with F. Corlier and J.F. Ingenbleek). *ASTIN*, 16, 1986, 45-62
Chains of Reinsurance Revisited (with J.P. Quairière). *ASTIN*, 16, 1986, 77-88
Recenti tendenze del mercato della assicurazioni sulla vita in USA. *Assicurazioni*, LVI, 1989, 119-123


Variabili rapportate alla salute nella tariffazione dell'assicurazione americana sulla vista: un'indagine. *Assicurazioni*, LVII, 1990, 440-448


Il sesso come variabile tariffaria nelle coperture assicurative USA. *Assicurazioni*, LVII, 1991, 121-126


L'AIDS e l'industria delle assicurazioni negli USA. *Assicurazioni*, LX, 1993, 205-217


Reducing firearm violence: a research agenda (with colleagues from the National Research Collaborative on Firearm Violence), *Injury Prevention*, 2007, 13, 80-84


**CHAPTERS OF BOOKS**

Smoothing a Bonus-Malus System. *New Frontiers in Insurance*, Tel Aviv, 1979, 123-133

Reinsurance as a Cooperative Game. *Applied Game Theory*, Physica Verlag, 1979, 254-269


**CONFERENCE PROCEEDINGS**


Applications of Game Theory to Insurance. *Record Society of Actuaries*, 1980, 959-963


Some Thoughts on the Use of the Arbitration Clause (with B. Berliner). *22nd IAA*, 1984, 1, 185-194


Application of Borch's Theorem to a Graph of Reinsurance (with K. Courtoy). *23rd IAA*, 1988, R, 252-259


Negative Binomial or Poisson-inverse Gaussian? *24th IAA*, 1992


**PRESENTATIONS**

**Before 2000:** 183 invited lectures and presentations at international meetings on game theory, automobile insurance, and applications of utility theory, in Australia, Austria, Belgium, Brazil, Canada, China, Congo, Costa Rica, Denmark, England, Finland, France, Germany, Greece, Hungary, Israel, Italy, Japan, Kenya, Korea, Malaysia, the Netherlands, Norway, Portugal, Scotland, Sweden, Switzerland, Taiwan, Tunisia, United States, Uruguay, Zaire

**Noteworthy invitations before 2000:**

Four invitations to the Oberwolfach Mathematical Institute, 1980, 1982
Keynote Address: 23rd International Congress of Actuaries, Helsinki, 1988
Invited Lecturer, Centennial Meeting of the Society of Actuaries, Washington, DC, 1989
Invited Lecturer, 75th Anniversary Meeting, Casualty Actuarial Society, New York, 1989

**Since 2000**

Genetic Testing: Insurance Issues

- Rutgers Actuarial Club (2000)
- Thai Actuarial Society, Bangkok (2000)
- ASTIN Colloquium, Sardinia (2000)
- Catholic U., Milan (2000)
- La Sapienza U., Rome (2000)
- Institute of Italian Actuaries, Rome (2000)
- U. Penn Pro-seminar (2001)
- Wharton ExecEd for the Society of Actuaries (2001)
- LDI seminar at Merck Pharmaceuticals (2001)
- Tsinghua U., Beijing (2002)
Keynote address, 21th Congress of the International Committee for Life, Disability and
Health Insurance Medicine, Venice (2004)
Swiss Re, Zurich (2004)
FUCAM, Mons, Belgium (2004)
Bergen School of Economics, Norway (2004)
ACLI – Annual Meeting of the Medical Section, Baltimore (2004)
U. Barcelona (2005)
Tsinghua U., Beijing (2006)
Singapore Management University (2010)
Statistical Genomics Seminar, U. Penn (2011)
University of Liverpool (2017)

Why do Females Live Longer than Males?

ASTIN Colloquium, Washington DC (2001)
LDI seminar at Merck Pharmaceuticals (2001)
Wharton IRM seminar (2002)
La Sapienza U., Rome (2003)
Swiss Re, Zurich (2004)

The Impact of Firearm Deaths on Life Expectancies

Wharton IRM seminar (2003)
School of Medicine, U. Penn (2003)
Pennsylvania Commission to Address Gun Violence, Harrisburg (2005)
Insurance: Mathematics and Economics Annual Congress, Quebec City (2005)
Tsinghua U., Beijing (2006)
School of Arts and Science, U. Penn (2007)
U. Penn family week-end (2008)
Wharton Statistics Department (2010)
Temple University (2010)
Wharton Politics and Business Association (2013)
Wharton BizTalks (2014)
The Design of Bonus-Malus Systems in Automobile Insurance short course

NIDA, Bangkok, 2000
Institute of Actuaries of India, Mumbai (2000)
Statistics Department PhD seminar (2011)
Pontificia Universidad Católica de Chile (2016)
University of Liverpool (2017)
ASTIN Colloquium Panama City (2017)

Insurance and Financial Applications of Markov Chains short course

La Sapienza U., Rome (2003)
NIDA, Bangkok (2005)
Portuguese Actuarial Assoc., Lisbon (2006)
University of Barcelona Insurance and Risk Management Summer School (2011)
Kyoto University (2013)

Stochastic Processes short course

Institute of Actuaries of India, Mumbai (2000)
Association of Hong Kong Actuaries (2000)
Tsinghua University (2011)


Is the Design of Bonus-Malus Systems Influenced by Insurance Maturity or National Culture?

Main lecturer Hans Bühlmann 80th Birthday Colloquium, Swiss Act. Assoc., Zurich, 2010
World Risk and Insurance Economics Congress, Singapore, 2010

Opportunities and Challenges for Actuarial Science Graduates.

Tan Sri Jeffrey Cheah Distinguished Lecture, Sunway U. College, Kuala Lumpur, 2010
Penn Actuarial Club (2011)
Penn Actuarial Club (2012)
Penn Actuarial Club (2014)
Penn Actuarial Club (2016)
Penn Actuarial Club (2017)
University of Liverpool (2017)

The Impact of Culture and Political Risk on Non-life Insurance

Keynote speaker, 40th ASTIN Colloquium, Madrid (2011)
China Center for Insurance and Risk Management, Beijing (2011)

The Use of Annual Mileage as a Rating Variable

Statistics department doctoral seminar (2012)
Wharton – Penn Risk and Insurance Program (2012)
42nd ASTIN Colloquium, The Hague (2013)
Japanese Institute of Actuaries, Tokyo, (2013)
48th Actuarial Research Conference, Philadelphia (2013)
Joseph Wharton Scholars Senior Research Seminar (2014)
2nd European Actuarial Journal Conference, Vienna (2014)
Pontificia Universidad Católica de Chile (2016)

Examples of regulatory constraints in insurance, Keynote speaker, 12th International Conference on Credit Risk Evaluation, Venice (2013)

L’Europe et les Etats-Unis: Deux modèles de société très différents, Keynote speaker, 50th Anniversary, Belgian Masonic Lodge (2014)

Retirement of Baby-Boomers in the USA: A Disaster in the Making, Keynote Speaker, 5th Iberian Actuarial Congress, Lisbon (2016)


The future of bonus-malus systems, Keynote Speaker, 5th Iberian Actuarial Congress, Lisbon (2016)

Why be an actuary? ¿Por qué debería ser un actuario? Pontificia Universidad Católica de Chile, (2017)

Modelling claim counts in motor insurance. University of Liverpool (2017)

Cash flows in Markov Chains. University of Liverpool (2017)

SELECTED ACTIVITIES FOR PROFESSIONAL AND SCIENTIFIC ORGANIZATIONS

2. 1981-1987 Chairman, Assoc. of Actuaries from the Free U. of Brussels
4. 1983-1987 Senior Vice-President and Chief Actuary; P.S Société d'Assurances
8. 1985-1987 Chairman, Belgian Automobile Joint Underwriters Assoc.
11. 1997-present Editorial Board, ASTIN Bulletin
12. 2011-present Associate Editor, Annals of Actuarial Science
13. 2015-present Associate Editor, Journal of Risk Management
14. 2015-2016 Scientific Committee, 44th ASTIN Colloquium, Lisbon
16. 2016-2017 Chairman, Scientific Committee, 45th ASTIN Colloquium, Panama City

WHARTON SCHOOL COMMITTEES AND ACTIVITIES

Director, Actuarial Science Program (1987 – present)
Chair, Insurance and Risk Management Department (1994 – 2003)
LDI Senior Fellow (1999 – present)
INSR Department Committee: Scholarship and Awards (1996 – 2011)
FICAP Associate (2005 – present)
University Academic Planning and Budget Committee (2007- 2010)
University Council on Honorary Degrees (2010 – 2011)
Wharton/Penn Risk and Insurance Program: Steering Committee (2012 – 2015)