

Pierre-O. Goffard

Assistant professor in applied mathematics

UCSB
Departments of Statistics
and Applied Probability
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French, 28 years old



Professional experience

- Since September 2016 **Visiting Assistant Professor**, *University of California in Santa Barbara*, Santa Barbara, USA.
- 2015–2016 **Post-Doctoral fellow**, *Université Libre de Bruxelles*, Brussels, Belgium.
- Aug.-November 2015 **Post-Doctoral fellow**, *Aarhus university*, Aarhus, Denmark.
- 2011–2015 **Ph.D. Student and junior actuary**, *Aix-Marseille university* and *AXA France* (french partnership named convention CIFRE), Marseille, France.

Education

- 2011–2015 **Ph.D. in applied mathematics**, *Aix-Marseille University* and *AXA France* (french partnership named convention CIFRE), Marseille, France.
Polynomial approximations of probability density function and applications to insurance.
Advisors: Denys Pommeret and Stephane Loisel.
- 2008–2011 **Master of Science (M. Sc.)**, *ENSAI*, Rennes, France.
◦ Major: Advanced Statistical Engineering
◦ Additional training (during the 3rd year, 2010–2011): Master of statistics and econometrics at the *University of Rennes 1*, focused on scientific research, in tandem with ENSAI engineering degree.
- 2006–2008 **Classes Préparatoires**, *Dupuy de Lôme High School*, Lorient, MP.
2 years of intensive training in Math, Physics and Chemistry.

Skills

- Technical Probability and statistics for finance and insurance (or anything else)
- IT R Studio, Python, SAS, Mathematica, Matlab, Java, HTML, CSS, Ruby, Markdown, *Latex*
- Languages French (*mother tongue*), English (*full professional proficiency*), Spanish (*notions*).

Research Expertise

Risk theory, numerical methods, boundary crossing problem, stochastic processes..

Teaching experience

- 2017–2018 **Instructor**, *UCSB*, Santa Barbara, USA.
Undergraduate and graduate students
◦ PSTAT130: Introduction to SAS (undergraduate class)
◦ PSTAT296: Research projects in actuarial science (Mentoring)
- 2016–2017 **Instructor**, *UCSB*, Santa Barbara, USA.
Undergraduate and graduate students
◦ PSTAT130: Introduction to SAS (undergraduate class)
◦ PSTAT120A: Introduction to probability (undergraduate class)
◦ PSTAT160A: Applied stochastic process (undergraduate class)
- 2015 **Teaching assistant**, *Aarhus University*, Aarhus, Denmark.
Bachelor in various fields
◦ Introduction to calculus (undergraduate class, 21h)

- 2013–2014 **Instructor**, [ENSAI](#), Rennes, France.
 Master in statistical engineering
 ◦ Introduction to ruin theory (graduate class, 6h)
- 2011–2014 **Teaching assistant**, [Aix-Marseille University](#), Marseille, France.
 Bachelor of Biology
 ◦ Introduction to statistical analysis (undergraduate class, 30h)
 Bachelor of mathematics applied to social science
 ◦ Advanced probability and statistics (undergraduate class, 30h)
 Master in actuarial science
 ◦ Introduction to ruin theory (graduate class, 6h)

Publications

Accepted/Published

- 2017 **P.O. Goffard**, *Two-sided exit problems in the ordered risk model*, Methodology and Computing in Applied Probability.
- 2016 **P.O. Goffard**, & **Claude Lefèvre**, *Boundary crossing problem of order statistic point processes*, Journal of Mathematical Analysis and Applications.
- 2015 **P.O. Goffard** & **Xavier Guerrault**, *Is it optimal to group policyholders by age, gender, and seniority for BEL computations based on model points?*, European Actuarial Journal.
- 2015 **P.O. Goffard**, **Stephane Loisel** & **Denys Pommeret**, *A polynomial expansion to approximate the ultimate ruin probability in the compound Poisson ruin model*, Journal of Computational and Applied Mathematics.
- 2015 **P.O. Goffard**, **Stephane Loisel** & **Denys Pommeret**, *Polynomial approximations for bivariate aggregate claims amount probability distributions*, Methodology and Computing in Applied Probability.

Submitted/under revision

- 2017 **P.O. Goffard** and **Patrick Laub**, *Two numerical methods to evaluate stop-loss premiums*, Working paper.
- 2017 **P.O. Goffard** and **Andrey Sarantsev**, *Exponential convergence rate of ruin probability for Level-dependent Lévy driven risk process*, Working paper.
- 2016 **P.O. Goffard**, & **Claude Lefèvre**, *Duality in ruin problems for ordered risk models*, Working paper.
- 2015 **Søren Asmussen**, **P.O. Goffard**, & **Patrick Laub**, *Orthonormal polynomial expansion and lognormal sum densities*, Working paper.

Selected communications

- USA 2017 **Seminar at UCSD**, San Diego.
- USA 2017 **Seminar at UIOWA**, Iowa City.
- Panama 2017 **2017 ASTIN AFIR/ERM Colloquium**, Panama City.
- USA 2017 **10th anniversary of the CFMAR conference**, Santa Barbara.
- USA 2017 **Seminar at USC**, Los Angeles.
- USA 2016 **Seminar at UCSB**, Santa Barbara.
- France 2016 **3rd European Actuarial Journal Conference**, Lyon.
- France 2016 **3rd of young researchers in probability, numerics and finance**, Le Mans.
- France 2016 **AMERISKA Conference**, Paris.
- Belgium 2016 **Joint ULB-UCL seminar**, Brussels.
- France 2016 **Thematic week on dependence, extreme and actuarial science**, Marseille.
- UK 2015 **CASS Business School Seminar**, London.
- Denmark 2015 **Thiele Seminar**, Aarhus.
- France 2015 **Université d'été de l'institut des actuaires**, Brest.
- France 2015 **PhD Thesis oral defense**, Marseille.

- UK 2015 19th **International Congress on insurance, mathematics, and economics**, *Liverpool*.
- France 2014 46^{ème} **journées de statistique**, *Rennes*.
- Germany 2013 **Conference on Advances in Financial and Insurance Risk Manangement**, *Munich*.
- France 2013 5^{ème} **Rencontre des Jeunes Statisticiens**, *Aussois*.
- France 2013 45^{ème} **journées de statistique**, *Toulouse*.
- Switzerland 2013 **Perspective on Actuarial Risks in Talks of Young Researchers**, *Ascona*.

Awards

- France 2015 **SCOR prize** of the young doctor in actuarial science, *Paris*.

Refereing activities

Methodology and Computing in Applied Probability , *MCAP*.

European Actuarial Journal , *EAJ*.

Risks.

Insurance: Mathematics and Economics, *IME*.

Operation Research Letters, *ORL*.

Hobbies

Music Campfire guitar player

Sports Surf, windsurf, soccer