

# Pierre-O. Goffard

Assistant professor in applied mathematics

UCSB  
Departments of Statistics  
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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 3<sup>rd</sup> 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

- Since September 2016 **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)

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## Publications

### Accepted/Published

- 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**, *Two-sided exit problems in the ordered risk model*, 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.

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## Selected communications

- USA 2017 10<sup>th</sup> anniversary of the CFMAR conference , Santa Barbara.
- USA 2017 Seminar at USC, Los Angeles.
- USA 2016 Seminar at UCSB, Santa Barbara.
- France 2016 3<sup>rd</sup> European Actuarial Journal Conference, Lyon.
- France 2016 3<sup>rd</sup> 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 19<sup>th</sup> International Congress on insurance, mathematics, and economics, Liverpool.
- France 2014 46<sup>ème</sup> journées de statistique, Rennes.
- Germany 2013 Conference on Advances in Financial and Insurance Risk Management, Munich.
- France 2013 5<sup>ème</sup> Rencontre des Jeunes Statisticiens, Aussois.
- France 2013 45<sup>ème</sup> journées de statistique, Toulouse.
- Switzerland 2013 Perspective on Actuarial Risks in Talks of Young Researchers, Ascona.

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## Awards

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

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## Refereing activities

**Methodology and Computing in Applied Probability** , *MCAP*.

**European Actuarial Journal** , *EAJ*.

**Methodology and Computing in Applied Probability** , *MCAP*.

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## Hobbies

Music Campfire guitar player

Sports Surf, windsurf, soccer