

# 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

- 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

- 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.
- 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.

## 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 **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 Manangement**, *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*.

**Risks**.

**Insurance: Mathematics and Economics**, *IME*.

**Operation Research Letters**, *ORL*.

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## Hobbies

Music Campfire guitar player

Sports Surf, windsurf, soccer