

# 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 **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 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*.

**Risks**.

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

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## Hobbies

Music    Campfire guitar player

Sports    Surf, windsurf, soccer