

ALAN RIVA-PALACIO COHEN

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Associate Researcher C

Probability and Statistics Department, IIMAS, UNAM

ACADEMIC APPOINTMENTS

Associate Researcher C

(corresponding to Assistant Professor)

at National Autonomous University of Mexico

October 2019 - Currently

EDUCATION

University of Kent, United Kingdom

PhD in Statistics

School of Mathematics Statistics and Actuarial Sciences

September 2015 - June 2019

Thesis defended in June 2019.

National Autonomous University of Mexico, Mexico

Master in Mathematical Sciences

(with specialization in Applied Mathematics)

September 2013 - June 2015

National Autonomous University of Mexico, Mexico

Bachelors in Mathematics (with Honours)

September 2008 - June 2013

RESEARCH INTERESTS

- Bayesian nonparametrics.
- Applied stochastic processes.
- Lévy processes.
- Simulation methods.

THESES AND PROJECTS

• **Bayesian Nonparametric Methods for Heterogeneous Data**

PhD Thesis, University of Kent.

Under the supervision of Dr Fabrizio Leisen and Dr Jim Griffin.

Available upon request.

• **On a vector of Dirichlet processes.**

MSc project, UNAM.

Under the supervision of Dr Ramses Mena.

Available upon request (In Spanish).

• **Coevolutional dynamic of a predator-prey system.**

Undergraduate Thesis, UNAM.

Under the supervision of Dr Manuel Falconi.

Available upon request (In Spanish).

JOURNAL PUBLICATIONS

- Riva-Palacio, A. & Leisen, F. (2021) **Compound vectors of subordinators and their associated positive Lévy copulas.** *Journal of Multivariate Analysis*, 183, 104728. JMA

- Riva-Palacio, A., Leisen, F. & Griffin, J. (2020). **Survival regression models with dependent Bayesian nonparametric priors.** *Journal of the American Statistical Association*, 1-28. JASA
- Riva-Palacio, A. & Leisen, F. (2018). **Bayesian nonparametric estimation of survival functions with multiple-samples information.** *Electronic Journal of Statistics*, 12(1), 1330-1357. EJS
- Riva-Palacio, A. & Leisen, F. (2018). **Integrability conditions for compound random measures.** *Statistics & Probability Letters*, 135, 32-37. S&PL

ONGOING WORKS

Submitted works

- Riva-Palacio A., Mena, R.H. and Walker S.G. **On the estimation of partially observed continuous-time Markov chains.**

In preparation

- Riva-Palacio A., Leisen, F. and Lijoi A. **Multiple-sample survival comparison.**
- Riva-Palacio A., Leisen, F. and Rubio F. J. **Bayesian nonparametric excess survival modeling.**

ACADEMIC EVENTS

Invited Talks

- *Generalized Additive Neutral to the Right Regression for Survival Analysis.*
Joint seminar of the “Bayesian Learning And Spatio-Temporal (BLAST)” and “Survival, Longitudinal, And Multivariate (SLAM)” working groups of John Hopkins University (Maryland, EUA), May 12, 2021, <https://sites.google.com/site/jhuslamgroup/past-activities/2021-2022?authuser=0>).
- *Survival regression models with dependent Bayesian nonparametric priors.*
BNP-ISBA webinar with Jim Griffin (University College London, United Kingdom), April 7 2021, available online at <https://bnp-isba.github.io/webinars.html>.
- *Lévy copulas in Bayesian nonparametric models.*
Junior International Society for Bayesian Analysis session (“Nonparametric Bayesian analysis of copula models”) at the 10th International Conference of the ERCIM WG on Computational and Methodological Statistics, December 16, 2017, London.
- *Dependent vectors of completely random measures and their applications in survival analysis.*
Seminar of the Department of Probability and Statistics of IIMAS at UNAM, May 31, 2017, Mexico City.

Contributed Talks

- *Survival regression with generalized additive neutral to the right priors.*
2021 World Meeting of the International Society for Bayesian Analysis, June 28, 2021, virtual meeting.
- *Bayesian non-parametric survival analysis regression.*
XV Latin American Congress of Probability and Mathematical Statistics, December 5, 2019, Mérida, México.
- *Survival analysis regression.*
12th Conference on Bayesian Nonparametrics, June 25, 2019, Oxford, United Kingdom.

- *Survival analysis with compound random measures.*
33rd Mexican National Forum of Statistics & 13th Latinamerican Congress of Statistical Societies, October 5, 2018, Guadalajara.
- *An extension of Clayton Lévy copulas with applications to Bayesian nonparametrics.*
Bayesian Young Statisticians Meeting, June 21, 2016, Florence.

Contributed Posters

- *Bayesian Nonparametric Survival Regression Models.*
2018 ISBA World Meeting, June 26, 2018, Edinburgh.
- *Scalable Bayesian nonparametric inference for a class of survival regression models.*
11th Conference on Bayesian Nonparametrics, June 27, 2017, Paris.
- *A new class of Levy-Clayton copulas with applications to Bayesian nonparametrics.*
CRISM Master Class Non-Parametric Bayes, April 5, 2016, Warwick.

TEACHING

Profesor de Asignatura A at UNAM.

August 2019 - June 2021

- Statistical Inference (2020-1). • Nonparametric models and regression (2020-2). • Stochastic simulation (2021-1). • Computational statistics (2021-1). • Stochastic simulation (2021-2).

Graduate teaching assistant at the University of Kent.

September 2015 - July 2018

- Stochastic processes (Autumn 2015, Autumn 2016). • Mathematics of Financial Derivatives (Autumn 2015, Autumn 2016). • Statistics for Insurance (Autumn 2015, Autumn 2016). • Computational Mathematics (Spring 2016). • Financial Mathematics (Autumn 2015, Spring 2016, Autumn 2016). • Probability (Autumn, 2016, Autumn 2017). • Mathematical Statistics (Autumn 2017). • Statistics (Spring 2018). • Applied Statistical Modelling (Spring 2018). • Graphs, Geometry and Trigonometry (Spring 2018).

Teaching assistant at the National Autonomous University of Mexico.

February 2012 - June 2012

- Algebra 2. • Differential Equations 1.

ORGANIZATION OF ACADEMIC EVENTS

- I was the organizer of the Postgraduate Seminar of the School of Mathematics Statistics and Actuarial Sciences at the University of Kent throughout the academical year 2018.

HONORS AND AWARDS

- I was given a travel grant for my attendance to the 12th Conference on Bayesian Nonparametrics, June 25, 2019, Oxford, United Kingdom.
- I was given a travel grant for my attendance to the 11th Conference on Bayesian Nonparametrics, June 27, 2017, Paris.
- I was given a travel grant for my attendance to the Bayesian Young Statisticians Meeting, June 21, 2016, Florence.
- I was given a travel grant for my attendance to the CRISM Master Class Non-Parametric Bayes, April 5, 2016, Warwick.
- I was granted a Graduate Teaching Assistantship scholarship at the University of Kent to fulfil my PhD studies.
- I was granted a scholarship by CONACyT for my Masters studies.

- I was granted a scholarship by the Mexican Secretary of Public Education for the fulfilment of my Bachelors thesis.
- I was granted a scholarship for the strengthening of the Bachelor studies by UNAM in the year 2012.