# Víctor Peña

✉ victor.pena.pizarro@upc.edu
vicpena.github.io
Updated: May 2024

## Employment

2024 - present Assistant Professor (professor lector)
Universitat Politècnica de Catalunya (UPC)

2022 - 2024 María Zambrano fellow
Universitat Politècnica de Catalunya (UPC)

2018 - 2022 Assistant Professor in Statistics
Zicklin School of Business, Baruch College
The City University of New York (CUNY)

## Education

2013 - 2018 PhD in Statistical Science
Duke University
Advisor: James O. Berger

2013 - 2015 MS in Statistical Science
Duke University

2008 - 2013 BS, MS Statistics
Universitat Politècnica de Catalunya (UPC)

## Publications

- Peña, V. & Barrientos, A.F. (2024) Differentially private methods for managing model uncertainty in linear regression models. *Journal of Machine Learning Research (JMLR).*
- Peña, V. & Barrientos, A.F. (2023) Differentially Private Hypothesis Testing with the Subsampled and Aggregated Randomized Response Mechanism. *Statistica Sinica.*
- Peña, V., & Irie, K. (2022). On the Relationship between Uhlig Extended and beta-Bartlett Processes. *Journal of Time Series Analysis, 43(1), 147-153.*
- Mulder, J., Berger, J. O., Peña, V., & Bayarri, M. J. (2021). On the prevalence of information inconsistency in normal linear models. *TEST, 30(1), 103-132*
- Peña, V. & Berger J.O. (2020). Restricted type II maximum likelihood priors on regression coefficients. *Bayesian Analysis, 15(4), 1281-1297.*
- Barrientos, A. F. & Peña, V. (2020). Bayesian bootstraps for massive datasets. *Bayesian Analysis, 15(2), 363-388*
- Jauch, M. & Peña, V. (2016). Bayesian optimization with shape constraints. *NIPS Workshop on Bayesian Optimization.*

- Attolini, C. S. O., Peña, V., & Rossell, D. (2015). Designing alternative splicing RNA-seq studies. Beyond generic guidelines. *Bioinformatics, 31(22), 3631-3637.*

## Submitted Work, Technical Reports, and Discussions

- Peña, V., & Jauch, M. Two new mixture representations for the generalized inverse Gaussian distribution and their applications. *arXiv:2401.00749.*
- Guo, Q., Barrientos, A.F. & Peña, V. Differentially Private Methods for Compositional Data. *Submitted.*
- Jauch, M., Barrientos, A. F., Peña, V. & Matteson, D. Mixture representations and Bayesian nonparametric inference for likelihood ratio ordered distributions. *Submitted.*
- Peña, V. & Berger, J. O. A note on recent criticisms to Birnbaum's theorem. *arXiv preprint arXiv:1711.08093.*
- Berger, J.O., Garcia-Donato, G., Martinez-Beneito, M.A, & Peña, V. Bayesian variable selection in high dimensional problems without assumptions on prior model probabilities. *arXiv preprint arXiv:1607.02993.*
- Banks, D. & Peña, V. (2017). Discussion of "Dissecting Multiple Imputation from a Multiphase Inference Perspective: What Happens when God's, Imputer's, and Analyst's Models are Uncongenial?." *Statistica Sinica, 27(4), 1554-1559.*

## Teaching

- Courses taught at UPC: Multivariate Analysis (undergraduate; Spring 22). Multivariate Analysis (graduate; Spring 22). Design of Experiments (undergraduate; Fall 22). Generalized Linear Models (graduate; Fall 22, 23). Probability and Statistics 2 (undergraduate; Fall 23). Statistical Inference (undergraduate; Spring 24).
- Courses taught at UOC: Software for Data Analysis (graduate; Fall 22, 23; Spring 22, 24), Bayesian Analysis (undergraduate; Fall 23; Spring 22, 24).
- Courses taught at CUNY: STA9750: Graduate `R` course (Fall 18, 19, 20; Spring 19), STA3000: Undergraduate `R` course (Fall 20, 21; Spring 21), STA4155: Regression analysis (Fall 21), STA2000: Introduction to Statistics for Business Students (Fall 18), `R` and Machine learning workshop for PhD students in Business (Winter 20, 21, 22).
- Courses taught at Duke: STA111: Introduction to Probability and Statistics (Summer 16), A&S101: Introduction to Quantitative Reasoning (Summer 17, 18).
- New courses developed at CUNY: STA9750 (graduate) and STA3000 (undergraduate). Both courses cover `R` (programming language), which was not taught when I joined.