# Víctor Peña

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## Employment

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| 2024 - present | Assistant Professor (professor lector)<br>Universitat Politècnica de Catalunya (UPC) |
| 2022 - 2024 | María Zambrano fellow<br>Universitat Politècnica de Catalunya (UPC) |
| 2018 - 2022 | Assistant Professor in Statistics<br>Zicklin School of Business, Baruch College<br>The City University of New York (CUNY) |

## Education

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| 2013 - 2018 | PhD in Statistical Science<br>Duke University<br>Advisor: James O. Berger |
| 2013 - 2015 | MS in Statistical Science<br>Duke University |
| 2008 - 2013 | BS, MS Statistics<br>Universitat Politècnica de Catalunya (UPC) |

## Publications

- Peña, V. & Barrientos, A.F. (2023) Differentially Private Hypothesis Testing with the Subsampled and Aggregated Randomized Response Mechanism. *Accepted at Statistica Sinica. DOI:10.5705/ss.202022.0279.*
- 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.*
- Peña, V. & Barrientos, A.F. Differentially private methods for managing model uncertainty in linear regression models. *Accept after minor revision at the Journal of Machine Learning Research (JMLR). Resubmitted.*
- 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), Bayesian Analysis (undergraduate; Fall 23; Spring 22).
- 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.

## Grants and Aid

- María Zambrano fellowship: Competitive fellowship awarded by the Spanish government to attract international talent (2022-2024).
- Peña, V., Grant, "Criteria for Bayesian hypothesis testing for two (and more) groups", PSC CUNY, $3,500.00. (start: May 2019, end: 2021).
- Summer research support at CUNY: 2019, 2020, 2021.

## Talks and posters

- Talks: ISBA 2016 (Cagliari), ENBIS 2016 (Barcelona), UPF internal seminar (2016), Baruch College (2017), UConn seminar series (2019), Vassar seminar series (2019), New England Statistical Society (2019, 2021), CMStatistics (2019, 2020), UPC seminar series (2023), EcoSta 2023 (Tokyo), Workshop on Bayesian Statistics (Tokyo, 2023), Workshop on Model Selection (Madrid, 2023), SEIO 2023 (Elche).
- Posters: OBayes 2017 (Austin), JSM 2019 (Denver).

## Service

- Reviewer for Bayesian Analysis, Journal of Computational Graphics and Statistics, The American Statistician, Statistical Science, TEST, Econometrics and Statistics, Statistics and Computing, Statistical Reviews, Sankhya A, Quality and Reliability Engineering International, Dyna, and European Journal for Philosophy of Science.
- Session chair, CMStatistics (2020, 2021).
- Chair of session on high-dimensional statistics, New England Statistical Society 2019.
- Organizing committee, Symposium on Data Science and Data Analytics at Baruch College (2018, 2019)
- Search committee for Assistant Professor in Statistics at Baruch College (2019, 2021, appointed).
- Graduate curriculum committee at Baruch College (appointed).
- Business communications working group at Baruch College (appointed).