Luis Enrique
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EDUCATION

1998 – 2001	University of Bath, England, UK Ph. D. in Statistics Graduated on July 25th 2001
1995 – 1997	IIMAS-UNAM, Mexico M. Sc. in Statistics and Operational Research Graduated on June 26th 1998
1991 – 1995	ITAM, Mexico B. Sc. in Actuarial Science Graduated on September 22nd 1995

ACADEMIC EXPERIENCE

Aug 2021 – Date	ITAM, Mexico Head of the Department of Statistics
Aug 2001 – Jul 2021	ITAM, Mexico Full Time Professor of Statistics *Undergraduate courses*: Bayesian Analysis, Linear Regression Analysis, Probability Calculus, Statistical Inference, Stochastic Processes, Survival Analysis *Posgraduate courses*:Bayesian Data Analysis, Multivariate Analysis, Advanced Regression
Aug 2014 – Jul 2015	University of Oxford, UK Visiting Professor, Department of Statistics
Aug 2007 – Jul 2008	M. D. Anderson Cancer Center and University of Rice, USA Visiting Associate Professor, Department of Biostatistics / Statistics *Posgraduate courses*: Bayesian Data Analysis
Jan 1997 – Aug 1998	ITAM, Mexico Full Time Professor of Statistics
Jun – Dec 1996	ITAM, Mexico Part Time Professor

<u>Academic visits</u>

September 2019	School of Applied Mathematics, Fundaçao Getulio Vargas, Brazil
August 2011	Department of Mathematics, Pontificia Universidad Catolica of Chile

Sept 2006	Department of Mathematics, University of Kent, UK
August 2006	Department of Statistics, University of Turin, Italy
March 2005, Jan 2009 Nov 2009 & Jul 2010	Department of Biostatistics, The University of Texas, M.D. Anderson Cancer Center, USA
Jun 2002	Department of Mathematical Sciences, University of Bath, UK

Diploma and special courses

Jul – Aug 2018	CONEVAL (National Council for the Evaluation of Social Development Policy) Lecturer of the course: "Multivariate Analysis"
Jun & Dec 2011	BANXICO (Central Bank of Mexico), Mexico Lecturer of the courses "Bayesian Methods" and "Survival Analysis"
Jan 2002 – Present	ITAM, Mexico Lecturer of the courses "Multivariate Analysis", "Bayesian Statistics" and "Basic Statistical Inference and Computations"
Jun – Jul 2003	INE (National Ecological Institute), Mexico Lecturer of the course "Basic Statistics and Sampling Techniques"
Jul 2000	Bocconi University, Milan, Italy Lecturer of the summer course in "Bayesian Nonparametric Methods"

PROFESSIONAL EXPERIENCE

Ene – Jun 2022	OPLE Coahuila (State Electoral Institute of Coahuila), Mexico Technical committee member for the PREP in the state elections 2021-2022
Ene – Jun 2021	INE (National Electoral Institute), Mexico Technical committee member for the quick counts in the electoral federal and local processes 2020-2021
Apr – Dec 2020	IMSS (Mexican Institute for Social Security), Mexico Statistical consultant to monitor the pandemic using labor incapacity data
Dic 2019 – Nov 2019	Datank AI, Mexico External Statistical Consultant
Ene – Jul 2018	INE (National Electoral Institute), Mexico Technical committee member for the quick counts in the electoral federal and local processes 2017-2018
Sept 2017 – Ene 2018	PNUD (United Nations Programme for the Development) and INECC (National Institute for Ecology and Climate Change) Principal consultant in the project: Evaluation of the economic effects of climate change in the health sector in Mexico
Feb – Jun 2017	INE (National Electoral Institute), Mexico Technical committee member for the quick count in the governor election of Nayarit

Ene – Jun 2016	OPLE (Local Electoral Institute) Veracruz, Mexico Technical committee member for the quick count in the governor election
Oct 2014 – Ago 2015	CONEVAL (National Council for the evaluation of the social development of political decisions), Mexico Advisor in the project of "small area estimation of poverty indicators 2014"
Apr – Nov 2014	SEDESOL (Ministry of Social Development), Mexico Advisor in the project of clustering households according to poverty conditions
Mar – Aug 2012	IFE (Electoral Federal Institute), Mexico Assistant to the technical committee for the quick count in the presidential election Assistant to the technical committee for the revision of the voters list
Jan – Sept 2010	CONEVAL (National Council for the evaluation of the social development of political decisions), Mexico Consultant to project of "imputing poverty indicators in small areas 2009"
Jan – Jul 2009	IFE (Electoral Federal Institute), Mexico Assistant to the technical committee for the revision of the voters list
Feb – Aug 2006	IFE (Electoral Federal Institute), Mexico Assistant to the technical committee for the quick count in the presidential election
March – Dec 2005	IPSOS – BIMSA, Mexico External Statistical Consultant
Aug 2004	IEE (Electoral State Institute in Morelos), Mexico Consultant for the Survey in Political Culture
Jun – Jul 1996	IFE (Electoral Federal Institute), Mexico Consultant in the project of defining the new districts
Mar 1994 – Mar 1996	Applied Science and Marketing Research, S. C., Mexico Analyst

EDITORIAL WORK, ASSOCIATIONS AND ADMINISTRATIVE POSITIONS

Editorial Work

Oct 2018 – Sept 2019	Selected Contributions on Statistics and Data Science in Latin America: 33FNE and 13CLATSE, 2018, Guadalajara, Mexico, October 1-5. Springer International Publishing Editor member
Oct 2010 – Sept 2014	JASA A&CS (Journal of the American Statistical Association, applications and case studies section) Associate Editor
Jan 2008 – Oct 2010	Proceeding of the Mexican National Statistical Congresses XXII & XXIII Co-Editor
Aug 2001 – Present	Biometrics, Biometrical Journal, Biostatistics, Canadian Journal of Statistics, Chilean Journal of Statistics, Journal of the American Statistical Association, Journal of Applied Statistics, Journal of Probability and Statistics, Journal of Quality Technology, Journal of

	the Royal Statistical Society Series B, Lifetime Data Analysis, North American Actuarial Journal, Scandinavian Journal of Statistics, Statistics in Medicine Reviewer

Associations

Oct 2019 – Nov 2021	AME (Mexican Statistical Association) President
Sept 2017 – Sept 2019	AME (Mexican Statistical Association) Vice-president
Sept 2005 – Sept 2009	AME (Mexican Statistical Association) Board committee member
Jan – May 1995	Actuaries Student Association, ITAM Treasurer

Administrative positions

2021	Blackwell-Rosenbluth Award by j-ISBA Evaluation Committee member
2016, 2017, 2018 2019	Fulbright – García Robles Grants Experts evaluation committee member
2016	Mitchell Prize – ISBA Evaluation Committee member
2012, 2013, 2014	Savage Award – ISBA Evaluation Committee member
2006, 2012	Francisco Aranda Ordaz Award – AME Co-Coordinator
2002 – 2020	Probability, Probability Calculus I & II and Statistics II Course coordinator at ITAM

CONGRESSES AND EVENTS ORGANIZATION

- XXXIII National Mexican Statistical Conference and XIII Latinamerican Conference of Statistical Societies. University of Guadalajara, Guadalajara, Mexico. October 1st – 5th, 2018.
  President of the scientific committee
- ISBA World Meeting 2014. Conference Center of Cancun, Mexico, July 14th – 18th, 2014
  Organizing committee member
- 3rd Reaserch Week on Bayesian Nonparametrics. Library Unit of the University of Veracruz, Boca del Río, Veracruz, Mexico. July 1st – 8th, 2011
  Organizing and Scientific committee member
- 8th Worshop on Bayesian Nonparametrics. Empirio Hotel, Veracruz, Mexico. June 26th – 30th, 2011
  Organizing and Scientific committee member

- 3rd Mexican Workshop on Bayesian Statistics. Empirio Hotel, Veracruz, Mexico. June 25th – 26th, 2011
  Organizing and Scientific committee member
- XXII National Mexican Statistical Conference. Hacienda Jurica Hotel, Querétaro, Mexico. October 17th – 20th, 2007
  Scientific committee member
- 2nd Latinamerican Bayesian Conference. San José del Cabo, Baja California Sur, Mexico. February 6th – 10th, 2005
  Organizing committee member
- 23rd International Symposium on Forecasting. Mérida, Yucatán, Mexico. June 15th – 18th, 2003
  Organizing committee member

DISSERTATIONS' DIRECTION

Postdoctorate

1. Christian Carmona Pérez. *Model-based approach for household clustering with mixed scale variables.* Central Bank of Mexico. From 1st September 2015 to 31th December 2016.
2. Ricardo Hoyos Argüelles. *A bayesian semiparametric archimedean copula.* Department of Statistics, ITAM. From 1st January 2017 to 30th June 2019.

Doctorate

3. James Watson. *Investigations into the robustness of statistical decisions.* PhD in Statistics, University of Oxford, UK. Graduated on: 18th of December, 2015. (Co-directed with Chris Holmes).

Masters

4. Alonso Baranda Lozada. *RKHS Teoría y aplicaciones en aprendizaje de máquinas y riesgo de crédito*. MSc in Risk Management, ITAM. Graduated on 2nd of September, 2020.

Undergraduate

5. Marco Antonio García Larrañaga Gálvez. *Aplicación de la distribución Skellam para modelar resultados de partidos de fútbol en México*. BSc in Actuarial Science, ITAM. Graduated on 29th of September, 2022.
6. Roberto Lobato López. *Estimación de efectos de tratamiento heterogéneos mediante árboles bayesianos aditivos*. BSc in Applied Mathematics, ITAM with honorific mention. Graduated on 21st of April, 2022.
7. Montserrat Vizcayno García. *Análisis de grupos utilizando un modelo bayesiano de mezclas*. BSc in Actuarial Science, ITAM. Graduated on 10th of December, 2021.
8. Karla Mayra Pérez Muñoz. *PPTcirc: análisis de datos circulares con árboles de Pólya proyectados*. BSc in Applied Mathematics, ITAM with honorific mention. Graduated on 28th of October, 2021.
9. Juan Manuel Díaz Nieto. *Bosques aleatorios, su construcción y propiedades*. BSc in Applied Mathematics, ITAM. Graduated on 30th of June, 2021.
10. José Pliego San Martín. *Modelo de supervivencia bivariado basado en cópulas*. BSc in Applied Mathematics, ITAM with special mention. Graduated on 8th of June, 2021.

11. Alejandro Olaya Gómez. *Caracterización de grupos con modelos bayesianos no paramétricos*. BSc in Actuarial Science, ITAM with special mention. Graduated on 23rd of April, 2021.

12. Emilio Akira Morones Ishikawa. *Actualización de BGPhazard con modelos de cura*. BSc in Applied Mathematics, ITAM. Graduated on 25th of September, 2020.

13. Sophia Alvarado Gómez. *Análisis de la encuesta "Ahorro y futuro, una perspectiva de género" con métodos estadísticos*. BSc in Actuarial Science, ITAM. Graduated on 7th of September, 2020.

14. Susana Eugenia Osés Cohen. *La fórmula del amor: modelos aplicados a sistemas de compatibilidad de parejas*. BSc in Actuarial Sciences, ITAM. Graduated on 16th of December, 2019.

15. Fernando Antonio Zepeda Herrera. *Análisis bayesiano de las configuraciones sociales del Front National en las elecciones presidenciales de 2012*. BSc in Actuarial Sciences and International Affairs, ITAM with special distinction. Graduated on 29th of November, 2019.

16. Regina Ceballos Modragón. *Análisis de subgrupos en ensayos clínicos*. BSc in Applied Mathematics, ITAM with special distinction. Graduated on 11th of June, 2019.

17. Mariana Bulos Rodríguez. *Sistemas de bicicletas compartidas: Análisis exploratorio de datos e implementación de herramientas de visualización para el caso ECOBICI en la Ciudad de México*. BSc in Applied Mathematics, ITAM with special distinction. Graduated on 10th of September, 2018.

18. Carlos Samuel Pérez Pérez. *Análisis jerárquico dinámico de las emisiones GEI en México durante 1990-2012*. BSc in Applied Mathematics and Economics, ITAM with honorific distinction. Graduated on 24th of November, 2017.

19. José Morales Zorrilla. *Modelo Bayesiano para el cálculo de reservas I.B.N.R.* BSc in Actuarial Sciences and Applied Mathematics, ITAM with special distinction. Graduated on: 31st of March, 2017. Special Mention in the *Research and Innovation in Insurance and Finance Award 2017* in the category of research in insurance.

20. Irving Simonin Wilmer. *Segmentación de imágenes y el proceso del restaurante chino.* BSc in Applied Mathematics, ITAM. Graduated on: 11th of November, 2016.

21. David Alejandro Martell Juárez. *Implementación computacional y aplicaciones de un modelo bayesiano no paramétrico para agrupación de series de tiempo.* BSc in Applied mathematics, ITAM with honorific distinction. Graduated on: 14th of December, 2015. AWARD: First place in the "Francisco Aranda Ordaz Award 2016".

22. Tania Antonio Lechuga. *Arboles de clasificación y regresión bayesianos*. BSc in Actuarial Sciences, ITAM. Graduated on: 13th of May, 2015.

23. José Luis Molina Borboa. *Predicción de ligas en redes dinámicas y complejas: aplicación a las redes del sistema financiero mexicano y riesgo de contagio*. BSc in Applied Mathematics, ITAM with special distinction. Graduated on: 30th of January, 2015.

24. Pedro Orozco del Pino. *Análisis bayesiano de datos gestacionales*. BSc in Applied Mathematics, ITAM. Graduated on: 23rd of January, 2015.

25. Gerardo Alexis Caballero Sousa. *Regresión Lineal Múltiple y Regresión Lineal Multivariada, con una Aplicación en la Predicción de Indicadores de Pobreza a los modelos multiescala*. BSc in Applied Mathematics, ITAM with special distinction. Graduated on: 28th of November, 2014.

26. David Abut Sacal. *Introducción a los modelos multiescala*. BSc in Actuarial Sciences, ITAM. Graduated on: 27th of August, 2014.

27. Ernesto Jesús Ulloa Pérez. *Procesos gaussianos en inferencia bayesiana*. BSc in Applied Mathematics, ITAM with honorific distinction. Graduated on: 27th of June, 2014.

28. María Andrea Usi López. *Análisis bayesiano de la influenza en México*. BSc in Applied Mathematics, ITAM. Graduated on: 18th of March, 2014. AWARD: First place in the "Francisco Aranda Ordaz Award 2014".

29. José Antonio García Bueno. *Estimación de funciones de riesgo con un enfoque bayesiano no paramétrico*. BSc in Actuarial Sciences, ITAM with Special distinction. Graduated on: 13th of December, 2013. AWARD: First place in the "XX Ex ITAM Research Award 2014"

30. Raúl Ramírez Amilpas. *Desarrollo de un modelo de credit scoring basado en análisis de supervivencia*. BSc in Actuarial Sciences, ITAM. Graduated on: 8th of November, 2013.

31. Rodrigo Antonio Hernández Hernández. *Modelos Bayesianos para el análisis de pacientes con VIH en México*. BSc in Actuarial Sciences, ITAM with Special distinction. Graduated on: 13th of September, 2013. AWARD: Third place in the "Francisco Aranda Ordaz Award 2014".

32. María Teresa Ortiz Mancera. *Análisis Bayesiano de desempeño escolar de acuerdo con los resultados de la prueba ENLACE*. BSc in Applied Mathematics, ITAM with honorific distinction. Graduated on: 13th of April , 2012.

33. Blanca Rosa Zepeda Lara. *Comparación de métodos de graduación en tablas de rotación*. BSc in Actuarial Sciences, ITAM. Graduated on: 20th of June, 2011.

34. Mónica Nava Osorio. *Evaluación de la gestión de las administradoras locales de recaudación del SAT*. BSc in Actuarial Sciences, ITAM. Graduated on: 1st April, 2011.

35. Daniel Iván Ugalde Gutiérrez. *Análisis de siniestralidad de gastos médicos usando árboles de regresión*. BSc in Actuarial Sciences, ITAM. Graduated on: 25th February, 2011.

36. Elizabeth Aquino Pérez. *Construcción de una tabla de mortalidad con un enfoque Bayesiano*. BSc in Actuarial Sciences, ITAM. Graduated on: 16th December, 2010.

37. Sofía López Lizarraga. *Segmentación binaria circular: Una técnica para detectar pérdidas y ganancias en el ADN*. BSc in Actuarial Sciences, ITAM with special distinction. Graduated on: 10th December, 2009. AWARD: First place in the "XVI Ex ITAM Research Award 2010".

38. Andrea del Castillo Zabalgoitia. *Análisis de factores: Método clásico y Bayesiano*. BSc in Applied Mathematics, ITAM. Graduated on: 10th October, 2008.

39. Horacio González Duhart Muñóz de Cote. *Análisis Bayesiano de modelos de supervivencia con riesgos competitivos*. BSc in Actuarial Sciences and Applied Mathematics, ITAM. Graduated on: 22th August, 2008.

40. Sahari Cabello Galicia. Análisis *de supervivencia: Modelos frailty*. BSc in Actuarial Sciences and Applied Mathematics, ITAM with honorific distinction. Graduated on: 12th June, 2008.

41. Héctor González Villatoro. *Análisis de series de tiempo con un modelo dinámico lineal con varianzas desconocidas y distintas*. BSc in Applied Mathematics, ITAM. Graduated on: 20th June, 2007.

42. Sergio Ulises Andraca Castillo. *Análisis de series de tiempo con un modelo dinámico lineal con varianzas desconocidas y distintas*. BSc in Actuarial Sciences, ITAM. Graduated on: 20th June, 2007.

43. José Antonio Parra Téllez. *Análisis Bayesiano semiparamétrico de regresión*. BSc in Applied Mathematics, ITAM. Graduated on: 18th May, 2007.

44. Omar García Vázquez. Análisis *de las reclamaciones de gastos médicos del plan nacional 20*. BSc in Actuarial Sciences, ITAM. Graduated on: 24th April, 2007.
45. María de los Angeles Rodríguez Barrera. *Estimación de la probabilidad de incumplimiento de bonos corporativos mexicanos*. BSc in Applied Mathematics, ITAM. Graduated on: 25th February, 2005.
46. Grelda Yazmín Juárez Caballero. *Análisis de supervivencia en niños con leucemia*. BSc in Actuarial Sciences, ITAM with special distinction. Graduated on: 3rd February, 2005.
47. Agustín Laguerena Carreño. *Análisis de supervivencia Bayesiano para pacientes con VIH*. BSc in Actuarial Sciences, ITAM. Graduated on: 9th October, 2003.
48. Lyn Pizano Rodríguez. *Una aplicación de las cadenas de Markov : Algoritmo de Metropolis-Hastings*. BSc in Applied mathematics, ITAM. Graduated on: 31st August, 1998.

PUBLICATIONS

Refereed Articles: **[Scimago, Scopus]**

1. Nieto-Barajas, L.E. (2024). Multivariate and regression models for directional data based on projected Pólya trees. *Statistics and Computing*. To appear. **[Q1, Q1]**.
2. Nieto-Barajas, L.E. & Hoyos-Argüelles, R. (2023). Generalised bayesian sample copula of order m. *Computational Statistics*. To appear. **[Q2, Q2]**.
3. Rodríguez, C.E., Pérez-Pérez, C.S. & Nieto-Barajas, L.E. (2023). Dealing with missing data under stratified sampling designs where strata are study domains. *Journal of Applied Statistics*. To appear. **[Q3, Q2]**.
4. Barros-Sierra, D., Zepeda-Tello, R., Tamayo-Ortiz, M., Gutiérrez-Díaz, H.O., Pérez-Chávez V.A., Rosa-Parra J.A., Nieto-Barajas, L.E., Méndez-Aranda, M., Herrera-Montalvo, L.A., Hernández-Ávila, M. (2023). SARS-CoV-2 seroprevalence and respiratory disease disability claims in Mexico City Metropolitan Area. *Salud Publica de Mexico* **65**, 334-343. **[Q2, Q2]**.
5. Nieto-Barajas, L. E. & Gutiérrez-Peña, E. (2022). General dependence structures for some models based on exponential families with quadratic variance functions. *TEST* **31**, 699-716. **[Q1, Q1]**.
6. Nieto-Barajas, L. E. (2022). Bayesian nonparametric dynamic hazard rates in evolutionary life tables. *Lifetime Data Analysis* **28**, 319-334. **[Q1, Q2]**.
7. Corradin, R., Nieto-Barajas, L.E. & Nipoti, B. (2022). Optimal stratification of survival data via Bayesian nonparametric mixtures. *Econometrics and Statistics* **22**, 17-38. **[Q2, Q2]**.
8. Nieto-Barajas, L.E. (2022). Dependence on a collection of Poisson random variables. *Statistical Methods and Applications* **31**, 21-39. **[Q3, Q3]**.
9. Nieto-Barajas, L.E. (2021). A class of dependent Dirichlet processes via latent multinomial processes. *Statistics* **55**, 1169-1179. **[Q2, Q3]**.
10. Nieto-Barajas, L. E. & Núñez-Antonio, G. (2021). Projected Pólya tree. *Journal of Computational and Graphical Statistics* **30**, 1197-1208. **[Q1, Q1]**.
11. Arbel, J., Kon Kam King, G., Lijoi, A., Nieto-Barajas, L. & Prünster, I. (2021). BNPdensity: Bayesian nonparametric mixture modeling in R. *Australian and New Zealand Journal of Statistics* **63**, 542-564. **[Q3, Q4]**.

12. Nieto-Barajas, L.E. & Pérez-Pérez, C.S. (2021). Descomposición factorial de los datos oficiales de COVID-19 en México. *Motivos Matemáticos* **4**, (1).

13. Nieto-Barajas, L.E. & Targino, R. (2021). A gamma moving average process for modelling dependence across development years in run-off triangles. *ASTIN Bulletin* **51**, 245-266. **[Q1, Q2]**.

14. Simonin, I., Brooks, M. & Nieto-Barajas, L.E. (2021). Portfolio recommendations to improve risk of default in microfinance. *CIENCIA ergo sum* **28** (1) March-June.

15. Nieto-Barajas, L.E. (2020). Bayesian regression with spatio-temporal varying coefficients. *Biometrical Journal* **62**, 1245-1263. **[Q1, Q2]**.

16. Hoyos, R. & Nieto-Barajas, L.E. (2020). A bayesian semiparametric archimedean copula. *Journal of Statistical Planning and Inference* **206**, 298-311. **[Q2, Q3]**.

17. Pérez-Pérez, C.S. & Nieto-Barajas, L.E. (2019). Análisis jerárquico de las emisiones de gases efecto invernadero en México. *Reality, Data and Space, International Journal of Statistics and Geography* **10** (3), 28-41 (in Spanish).

18. Carmona, C., Nieto-Barajas, L. and Canale, A. (2019). Model-based approach for household clustering with mixed scale variables. *Advances in Data Analysis and Classification* **13**, 559-583. **[Q2, Q1]**.

19. Juárez-Cerrillo, S.F. & Nieto-Barajas, L.E. (2019). The quick count of Veracruz 2016: Statistical and logistical aspects. *Mexican Journal of Electoral Studies* **21**, 1st Semester, Mexico (in Spanish).

20. Nieto-Barajas, L.E. (2018). Interpolation of paleoclimatology datasets. *Atmosfera* **31**, 125-141. **[Q3, Q3]**.

21. Nieto-Barajas, L.E. and Huerta, J.G. (2017). Spatio-temporal pareto modelling of heavy-tail data. *Spatial Statistics* **20**, 92-109. SJR 0.72, **[Q2, Q1]**.

22. Watson, J., Nieto-Barajas, L. and Holmes, C. (2017). Characterising variation of nonparametric random probability measures using the Kullback-Leibler divergence. *Statistics* **51**, 558-571. **[Q2, Q3]**.

23. Filippi, S. Holmes, C. and Nieto-Barajas, L. E. (2016). Scalable Bayesian nonparametric measures for exploring pairwise dependence via Dirichlet process mixtures. *Electronic Journal of Statistics* **10**, 3338-3354. **[Q1, Q3]**.

24. Nieto-Barajas, L. E. and Quintana F. A. (2016). A Bayesian nonparametric dynamic AR model for multiple time series analysis. J*ournal of Time Series Analysis* **37**, 675-689. **[Q2, Q2]**.

25. Nieto-Barajas, L. E., Ji, Y. and Baladandayuthapani, V. (2016). A semiparametric Bayesian model for comparing DNA copy numbers. *Brazilian Journal of Probability and Statistics* **30**, 345-365. **[Q3, Q3]**.

26. Mendoza, M. and Nieto-Barajas, L. E. (2016). Quick counts in the Mexican presidential election: A Bayesian approach. *Electoral Studies* **43**, 124-132. **[Q1, Q1]**.

27. Nieto-Barajas, L. E. and Sinha, T. (2015). Bayesian interpolation of unequally spaced time series. *Stochastic Environmental Research and Risk Assessment* **29**, 577-587. **[Q1, Q1]**.

28. Nieto-Barajas, L. E. (2014). Bayesian semiparametric analysis of short- and long-term hazard ratios with covariates. *Computational Statistics and Data Analysis* **71**, 477-490. **[Q1, Q2]**.

29. Nieto-Barajas, L. E. and Contreras-Cristán, A. (2014). A Bayesian nonparametric approach for time series clustering. *Bayesian Analysis* **9**, 147-170. **[Q1, Q1]**.

30. Nieto-Barajas, L. E. (2013). Lévy-driven processes in Bayesian nonparametric inference. *Bulletin of the Mexican Mathematical Association* **19**, 167-280.

31. Barrios, E., Lijoi, A., Nieto-Barajas, L. E. and Prünster, I. (2013). Modeling with normalized random measure mixture models. *Statistical Science* **28**, 313-334. **[Q1, Q1]**.

32. Nieto-Barajas, L. E. (2013). Enfoque bayesiano en la estimación de área pequeña. *Reality, Data and Space, International Journal of Statistics and Geography* **4** (2), 52-63.

33. Jara, A., Nieto-Barajas, L. E. and Quintana, F. (2013). A time series model for responses on the unit interval. *Bayesian Analysis* **8**, 723-740. **[Q1, Q1]**.

34. Nieto-Barajas, L. E. and Bandyopadhyay, D. (2013). A zero-inflated spatial gamma process model with applications to disease mapping. *Journal of Agricultural, Biological and Environmental Statistics* **18**, 137-158. **[Q1, Q2]**.

35. Bekele, B. N., Nieto-Barajas, L. E. and Munsell, M. F. (2012). Analysis of partially incomplete tables of breast cancer characteristics with an ordinal variable. *Journal of Statistical Theory and Practice* **6**, 725-744. **[Q3, Q4]**.

36. Nieto-Barajas, L. E., Müller, P., Ji, Y., Lu, Y. and Mills, G. (2012). A time series DDP for functional proteomics profiles. *Biometrics* **68**, 859-868. **[Q1, Q1]**.

37. Nieto-Barajas, L.E. and Müller, P. (2012). Rubbery Polya Tree. *Scandinavian Journal of Statistics* **39**, 166-184. **[Q1, Q2]**.

38. Baladandayuthapani, V., Ji, Y., Talluri, R., Nieto-Barajas, L. E. & Morris, J. S. (2010). Bayesian random segmentation models to identify shared copy number aberrations for array CGH data. *Journal of the American Statistical Association* **105**, 1358-1375. **[Q1, Q1]**.

39. Mena, R. and Nieto-Barajas, L. E. (2010). Exchangeable claim sizes in a compound Poisson type process. *Applied Stochastic Models in Business and Industry* **26**, 737-757. **[Q2, Q3]**.

40. López-Lizarraga, S. and Nieto-Barajas, L. E. (2010). Segmentación binaria circular: Una técnica para detectar regiones dañadas del ADN. *Actuarios Trabajando CONAC*, **2** (4), 94-110. (In Spanish).

41. Yin, G. and Nieto-Barajas, L. E. (2009). Bayesian cure rate model accommodating multiplicative and additive covariates. *Statistics and Its Interface* **2**, 513-521. **[Q3, Q4]**.

42. Nieto-Barajas, L. E. and Prünster, I. (2009). A sensitivity analysis of Bayesian nonparametric density estimators. *Statistica Sinica* **19**, 685-705. **[Q1, Q3]**.

43. de Alba, E. and Nieto-Barajas, L. E. (2008). Claims reserving: A correlated Bayesian model. *Insurance: Mathematics and Economics* **43**, 368-376. **[Q1, Q2]**.

44. Müller, P. and Nieto-Barajas, L. E. (2008). Discussion on the paper: The nested Dirichlet process by Rodriguez, Dunson and Gelfand. *Journal of the American Statistical Association* **103**, 1146-1147. **[Q1, Q1]**.

45. Nieto-Barajas, L. E. and Yin, G. (2008). Bayesian semiparametric cure rate model with an unknown threshold. *Scandinavian Journal of Statistics* **35**, 540-556. **[Q1, Q2]**.

46. Nieto-Barajas, L. E. (2008). A Markov gamma random field for modeling disease mapping data. *Statistical Modelling* **8**, 97-114. **[Q2, Q1]**.

47. Nieto-Barajas and Walker, S. G. (2007b). Gibbs and autoregressive Markov processes. *Statistics and Probability Letters* **77**, 1479-1485. **[Q3, Q3]**.

48. Nieto-Barajas, L. E. and Walker, S. G. (2007a). A Bayesian semi-parametric bivariate failure time model. *Computational Statistics and Data Analysis* **51**, 6102-6113. **[Q1, Q2]**.

49. Mendoza, M. and Nieto-Barajas, L. E. (2006). Bayesian solvency analysis with autocorrelated observations. *Applied Stochastic Models in Business and Industry* **22**, 169-180. **[Q2, Q3]**.

50. Nieto-Barajas, L. E. and Walker, S. G. (2005). A semi-parametric Bayesian analysis of survival data based on Lévy-driven processes. *Lifetime Data Analysis* **11**, 529-543. **[Q1, Q2]**.

51. Nieto-Barajas, L. E., Prünster, I. and Walker, S. G. (2004). Normalized random measures driven by increasing additive processes. *Annals of Statistics* **32**, 2343-2360. **[Q1, Q1]**.

52. Nieto-Barajas, L. E. and Walker, S. G. (2004). Bayesian nonparametric survival analysis via Lévy driven Markov processes. *Statistica Sinica* **14**, 1127-1146. **[Q1, Q3]**.

53. Nieto-Barajas, L. E. and Walker, S. G. (2002). Markov beta and gamma processes for modelling hazard rates. *Scandinavian Journal of Statistics*, **29**, 413-424. **[Q1, Q2]**.

Non Refereed Articles:

54. Nieto-Barajas, L. E. (2010). Bayesian Nonparametrics (Annotated Bibliography). *The ISBA Bulletin* 17 (4), 3-5.

55. Nieto-Barajas, L. E. (1997). Análisis discriminante CART (Arboles de clasificación y de regresión). *DATOS: Boletín de la Asociación Mexicana de Estadística*, 13, 8-10.

Conference Proceedings:

56. Pérez-Pérez, C. S. & Nieto-Barajas, L. E. (2022). Sampling design and poststratification to correct lack of information in bayesian quick counts. In *Interdisciplinary Statistics in Mexico*, *Springer Proceedings in Mathematics & Statistics 397*, I. Antoniano-Villalobos et al. (eds.), 163-176. ISBN: 9783031127786.

57. Sánchez-Castañeda, M. D., Nieto-Barajas, L. E. & Fuerte-Celis, M. P. (2022). Bayesian analysis of homicide rates in Mexico from 2000 to 2012. In *Interdisciplinary Statistics in Mexico*, *Springer Proceedings in Mathematics & Statistics 397*, I. Antoniano-Villalobos et al. (eds.), 211-227. ISBN: 9783031127786.

58. Nieto-Barajas, L. E. (2018). Use of IT's in the generation of electoral results in Mexico (Uso de las TIC's en la generación de resultados electorales en México). Memoria del Foro Nacional *El futuro de las elecciones en México* (Libertades y tecnología). J.M. Vázquez-Barajas, L.A. Martín-Capistrán (eds.) Tirant Lo Blanch, CDMX. pp. 329-332. ISBN: 9788413554204.

59. Nieto-Barajas, L. E. (2005). Sensitivity analysis of a semiparametric survival model (Análisis de sensibilidad de un modelo de supervivencia semiparamétrico). *Memorias del XVIII Foro Nacional de Estadística*, 51-56. ISBN: 9701336534.

60. Nieto-Barajas, L. E. (2003). Discrete time Markov gamma processes and time dependent covariates in survival analysis. *Bulletin of the International Statistical Institute 54th Session*. Berlin. E-version.

61. Nieto-Barajas, L. E. (2003). Beta processes in survival analysis (Procesos beta en el análisis de supervivencia). *Memorias del XVII Foro Nacional de Estadística*, 93-99. ISBN: 9701343395.

62. Gutiérrez-Peña, E. and Nieto-Barajas, L. E. (2003). Bayesian nonparametric inference for mixed Poisson processes. *Bayesian Statistics* **7**, J. M. Bernardo, et al. (Eds.), 163-179. ISBN: 0198526156.

63. Nieto-Barajas, L. E. & Gutiérrez-Peña, E. (1998). Bayesian inference from multimodal posterior distributions (Inferencia Bayesiana a partir de distribuciones finales multimodales). *Memorias del XII Foro Nacional de Estadística*, 114-118. ISBN: 9701321111.

64. Nieto-Barajas, L. E. & Cortina-Borja, M. (1996). A comparison among three classification methods (Una comparación de tres métodos de clasificación). *Memorias del X Foro Nacional de Estadística y II Congreso Iberoamericano de Estadística*, 167-173. ISBN: 9701314042.

Chapters in Books:

65. Nieto-Barajas, L. E. (2018). *Evaluation of the economic effects of climate change in the health sector in Mexico*. Project 86487 "Platform of Collaboration on Climate Change and Green Growth between Canada and Mexico". PNUD Mexico-INECC. 151 pp.
Available at: http://cambioclimatico.gob.mx:8080/xmlui/handle/publicaciones/298

66. Nieto-Barajas, L. E. (2015). Markov Processes in Survival Analysis. In *Nonparametric Bayesian Inference in Biostatistics*. R. Mitra and P. Müller (eds.) Springer. pp. 195-213. ISBN: 9783319195179.

67. Nieto-Barajas, L. E. and De Alba, E. (2014). Bayesian Regression Models. In *Predictive Modeling Applications in Actuarial Science*. E.W. Frees, R.A. Derrig, and G. Meyers (eds.) Cambridge University Press. pp. 334-366. ISBN: 9781107029873.

68. Nieto-Barajas, L. E. and Islas-Camargo, A. (2006). Estimación por intervalos. In *Fundamentos de Probabilidad y Estadística*, 2nd. edition. Jit Press: Mexico. pp. 7-1 to 7-29. ISBN: 9687788453.

69. Nieto-Barajas, L. E. and Islas-Camargo, A. (2003). Estimación por intervalos. In *Fundamentos de Probabilidad y Estadística*. Jit Press: México. pp. 7-1 to 7-25. ISBN: 968778833X.

Manuscripts:

- Nieto-Barajas, L.E. (2022). Leaf clustering using circular densities.

SOFTWARE DEVELOPMENT

R packages:

- Barrios, E., Kon Kam King, G., Lijoi, A., Nieto-Barajas, L.E. & Prünster, I. (2021). *BNPdensity*: Ferguson-Klass type algorithm for posterior normalized random measures. (Based on Barrios et al., 2013).
- Carmona, C and Nieto-Barajas, L.E. (2016). *BNPMIXclust*: Bayesian Nonparametric Model for Clustering with Mixed Scale Variables. (Based on Carmona, Nieto-Barajas & Canale, 2016).
- Morones-Ishikawa, E.A., Pliego-San-Martrín, J., García-Bueno, J.A. and Nieto-Barajas, L.E. (2020). *BGPhazard*: Markov Beta and Gamma Processes for Modeling Hazard Rates. (Based on Nieto-Barajas & Walker, 2002; Nieto-Barajas, 2003; Nieto-Barajas & Walker, 2007a; Nieto-Barajas & Yin, 2008).
- Martell-Juárez, D. A. and Nieto-Barajas, L.E. (2015). *BNPTSclust*: A Bayesian Nonparametric Algorithm for Time Series Clustering. (Based on Nieto-Barajas & Contreras-Cristán, 2014).
- Pérez-Muñoz, K.M. and Nieto-Barajas, L.E. (2021). *PPTcirc*: Projected Pólya tree model for circular data. (Based on Nieto-Barajas & Núñez-Antonio, G., 2021).

INTERNATIONAL CONFERENCES AND SEMINARS

1. Spatio-temporal pareto modelling of heavy tail data. *Brown bag seminar, Department of Statistical Sciences.* University of Toronto, Canada, 10 of October 2023.
2. A Bayesian semiparametric Archimedean copula. *Joint Statistical Meeting.* Toronto, Canada, 5—10 of October 2023.
3. Modelling dependence within and across run-off triangles for claims reserving. *Quantac: Actuarial and financial mathematics laboratory Seminar Series.* Concordia University, Canada, online, 22 of October 2021.
4. A class of dependent Dirichlet processes via latent multinomial processes. Seminar at the *Department of Statistics, University of California Santa Cruz.* USA, online, 4 of October 2021.
5. A time series DDP for analyzing functional proteomics profiles. *Transversal graduate topics discipline – Applications of Bayesian Statistics*. Universidade Federal de Minas Gerais, Brazil, 6 of January 2021.
6. Modelling dependence within and across run-off triangles for claims reserving. *Online International Conference in Actuarial Science, Data Science and Finance*. Organized by Uniersité Lyon, France, 28 – 29 of April 2020.
7. A Bayesian nonparametric dynamic AR model for multiple time series analysis. *Seminars EMAp*. Fundaçao Getulio Vargas, Brazil, 19 of September 2019.
8. Projected Pólya Tree. *BNP12 International Conference on Bayesian Nonparametrics*. University of Oxford, UK, 24 – 28 of June 2019.
9. Scalable Bayesian nonparametric measures for exploring pairwise dependence via Dirichlet Process Mixtures. *ISBA 2018 World Meeting*. University of Edinburgh, UK, 25 – 30 of June 2018.
10. Model based approach for household clustering with mixed scaled variables. O'Reilly Institute. *Trinity College Dublin*, Ireland, 22 of June 2018.
11. Two unrelated topics: Pólya trees and copulas. *Bayesian nonparametric inference: Dependence structures and their applications*. Casa Matematica Oaxaca-BIRS, Oaxaca, Mexico, 3 – 8 of December 2017.
12. A Bayesian nonparametric dynamic AR model for multiple time series analysis. *V COBAL*. CIMAT, Guanajuato, Mexico. 7 – 10 of June 2017.
13. Model based approach for household clustering with mixed scaled variables. *ISBA World Meeting 2016*. Sardinia, Italy. 13 – 17 of June 2016.
14. Dependent structures with applications to actuarial science. *Recent Advances in Actuarial Mathematics. Casa Matematica Oaxaca – BIRS*. Oaxaca, Mexico. 26 – 30 of October 2015.
15. Order-q dependent stochastic processes in Bayesian applications. *Statistics Colloquium, University of New Mexico*, Albuquerque, E. U. 2 of October 2015.
16. Order-q dependent stochastic processes in Bayesian nonparametric applications. *10th Workshop on Bayesian nonparametrics*. North Carolina State University, Raleigh, E. U. 22 – 26 of June 2015.
17. Spatial gamma processes in disease mapping. Seminar in Statistics at *Colegio Carlo Alberto, University of Turin*. Moncalieri, Italy. 11 of December 2014.

18. A Bayesian nonparametric approach for time series clustering. Session invited speaker at *ERCIM 2014: 7th International Conference of the ERCIM WG on Computational and Methodological Statistics*. Pisa, Italy. 6 – 8 of December 2014.
19. A Bayesian nonparametric approach for time series clustering. *CRiSM Seminar, University of Warwick*. Coventry, UK. 2 of December 2014.
20. The use of latent variables to construct dependent stochastic processes for statistical modelling. *Graduate Lectures Series of the Department of Statistics*, University of Oxford, UK. 20 of November 2014.
21. A Bayesian nonparametric approach for time series clustering. Seminar at the *Computational Statistics reading group, Department of Statistics of the University of Oxford*. Oxford, UK. 17 of October 2014.
22. Spatial gamma processes in disease mapping. Seminar at the *Department of Mathematical Sciences, University of Bath*. Bath, UK. 7 of October 2014.
23. A semiparametric Bayesian model for comparing DNA copy numbers. Invited speaker at *ISBA 2014 World Meeting*. Cancun, Mexico. 14 – 18 of July 2014.
24. Bayesian semiparametric analysis of short- and long-term hazard ratios with covariates. Invited speaker at *9th Conference on Bayesian Nonparametrics*. Amsterdam, Holland. 10 – 14 of June 2013.
25. Bayesian analysis of functional proteomics profiles. Session contributed speaker at *2012 Joint Statistical Meetings*. San Diego, California, USA. 28 of July – 2 of August 2012.
26. Bayesian analysis of functional proteomics profiles. Invited speaker at *ISBA 2012 World Meeting*. Kyoto Japan. 25 – 29 of June 2012.
27. Bayesian analysis of functional proteomics profiles. Seminar at the *Department of Mathematics, University of Texas at Austin*. Austin, Texas, USA. 29 of February 2012.
28. Exchangeable claim sizes in a Poisson-type process. Seminar at the *Department of Mathematics, Pontificia Universidad Católica de Chile*. Santiago, Chile. 2 of September 2011.
29. A general sampling scheme for NRMI mixture models: BNPdensity, an R package. Invited speaker at *8th Workshop on Bayesian nonparametrics (Research Week)*. Veracruz, Mexico. 1–9 of July 2011.
30. A Markov gamma random field for modeling respiratory infections in Mexico. Invited speaker at *Conference on Nonparametric Statistics and Statistical Learning*. The Ohio State University, Columbus, Ohio, USA. 19–22 of May 2010.
31. Rubbery Polya Tree. Invited speaker at *7th Workshop on Bayesian Nonparametrics*. Colegio Carlo Alberto, Moncalieri, Italy. 21–25 of June 2009.
32. Bayesian Biostatistics. Nine hours Course at *Encontro de Pós-Graduação e Pesquisa e XIV Seminário de Iniciação Cientifica*. University of Pernambuco, Recife, Pernambuco, Brazil. 8 – 10 of October 2008.
33. Rubbery Polya tree. Poster at *Modern semiparametric methods in action.* SRCS 2008, South Carolina, USA. 8 – 11 of June 2008.
34. Sensitivity Analysis for NP Bayes density estimation. Seminar at the *Department of Statistics, University of California Santa Cruz*. Santa Cruz, California, USA. 13 of April 2008.
35. Bayesian semiparametric cure rate model with an unknown threshold. Seminar at the Department of Biostatistics of the University of Texas M.D. Anderson Cancer Center. Houston, Texas, USA. 12 of October 2007.

36. A Bayesian approach to predicting the 2006 Mexican presidential election. Seminar at the Department of Statistics of the University of Rice. Houston, Texas, USA. 1 of October 2007.
37. Some good news about nonparametric priors in density estimation. Invited Speaker at *Bayesian Nonparametric Regression: Theory, Methods and Applications*. Isaac Newton Institute for Mathematical Sciences, Cambridge, UK. 6 – 10 of August 2007.
38. Mixture of normalised weighted increasing additive processes for density estimation. Invited speaker at *5th Worshop on Bayesian Nonparametrics*. Jeju Grand Hotel, Korea. 18 – 21 of June 2006.
39. Bayesian nonparametric and semiparametric models in survival analysis. *Seminar at the Department of Biostatistics of the University of Texas M.D. Anderson Cancer Center*. Houston, Texas, USA. 30 of March 2005.
40. A semiparametric Bayesian analysis of failure time data. Invited speaker and organizer at *2nd Latin American Bayesian Congress (COBAL 2)*. San Jose del Cabo, Mexico. 6 – 10 of February 2005.
41. Lévy-driven processes in Bayes Nonparametrics. Invited speaker at *IVth Worshop on Bayesian Nonparametrics*. Rome, Italy. 13 – 16 of June 2004.
42. A Bayesian nonparametric bivariate survival model. Invited speaker at *ISBA World Meeting 2004*. Viña del Mar, Chile. 23 – 27 de mayo de 2004.
43. Bayesian nonparametric survival analysis via Markov processes. Invited speaker at *IX Congreso Latinoamericano de Probabilidad y Estadística Matemática*. Punta del Este, Uruguay. 22 – 26 of March 2004.
44. Discrete time Markov gamma processes and time dependent covariates in survival analysis. Invited speaker at *24th Session of the International Statistical Institute (ISI)*. Berlin, Germany. 13 – 20 of August 2003.
45. Bayesian nonparametric survival analysis via Markov processes. Invited speaker at *2003 Joint Statistical Meetings*. San Francisco, California, USA. 3 – 7 of August 2003.
46. Bayesian solvency analysis with autocorrelated observations. Poster at *Bayesian Statistics 7*. Tenerife, Canary Islands, Spain. 1 – 6 of June 2002.
47. Lévy driven Markov processes in survival analysis. Invited speaker at *III Bayesian Nonparametric Summit*. University of Michigan Business School, Ann Arbor, USA. 27 of July – 2 of August 2001.
48. Semi-parametric Bayesian analysis of heart transplant data. Contributed talk at *24th. Research Students' Conference in Probability and Statistics*. University of New Castle, England, UK. 26 – 29 of March 2001.
49. Markov beta process for modelling hazard rates. Contributed talk at *23rd Research Students' Conference in Probability and Statistics*. University of Cardiff, Wales, UK. 11 – 14 of April 2000.

HONORS AND AWARDS

- Winner of the "Award to the Professional Merit" for at least 15 years of outstanding professional career in the Academia. Awarded on 8th November 2011.
- Member of the National System of Researchers, Mexico (Level II). From January 2009.
- Fulbright-García Robles grantee from August 2007 to July 2008.

- Winner of the "Latin American Francisco Aranda Ordaz Award" for the best doctoral thesis in Statistics 2002-2004. Awarded on 23rd March 2004.
- Winner of the “Savage Award” in the category of Theory and Methods for the best doctoral thesis on Bayesian Statistics. Awarded on 15th August 2002.
- “Alfonso Caso Medal” for the best graduate in 1998 in the Masters program in Statistics. Awarded on 30th January 2004.
- Winner of the “National Francisco Aranda Ordaz Award” for the best Masters thesis in Statistics. Awarded in October 1998.
- Honorific Mention at the Masters degree in Statistics. Given on 26th June 1998.
- Special Mention at the Bachelors degree in Actuarial Science. Given on 22nd September 1995.

GRANTS

Jan – Dec 2002	CONACYT project I39357-E. Amount: $6,000 USD.
Jul 2005 – Jun 2007	CONACYT project J48072-F. Amount: $15,000 USD.
May 2011 – April 2014	CONACYT project I130991. Amount: $16,000 USD.
Ago 2014 – Jul 2015	CONACYT grant 244459. Amount: $12,000 USD.

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