

**XIX Conferencia Española  
y  
VIII Encuentro Iberoamericano  
de Biometría**

**CEB-EIB 2023**

**Programa**

Vigo, 27–30 de junio de 2023

## Comité Científico

- Presidente: JAVIER ROCA PARDIÑAS (Universidade de Vigo)
  
- DANILO ALVARES (University of Cambridge, Reino Unido)
- IRANTZU BARRIO (Universidad del País Vasco–Euskal Herriko Unibertsitatea)
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- MARÍA XOSÉ RODRÍGUEZ ÁLVAREZ (Universidade de Vigo)
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- MARTA SESTELO (Universidade de Vigo)
- JESSICA MARTHA VERA BERMÚDEZ (Escuela Superior Politécnica del Litoral, Ecuador)

**Martes**  
**27 de junio**

## **Curso**

### **Introducción a los modelos de curación**

Ricardo Cao, María Amalia Jácome (Universidade da Coruña).

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**9:30–11:30** Primera sesión del curso – Aula A4I

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**11:30–12:00** Café descanso – Hall

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**12:00–14:00** Segunda sesión del curso – Aula A4I

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**14:00–15:30** Almuerzo

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**15:30–17:30** Tercera sesión del curso – Aula A4I

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**20:00–22:00** **Recepción oficial del congreso** – Pazo Quiñones de León (Parque de Castrelos)

**Miércoles  
28 de junio**

## Resumen del día

**8:30–9:30 Registro y entrega de documentación**

**09:30–10:00 Acto de apertura** – Salón de Actos

**10:00–11:00 Conferencia plenaria** – Salón de Actos

*Comparison of different approaches to estimate linkage disequilibrium extent in crop breeding populations*

María Gabriela Cendoya (Universidad Nacional de Mar del Plata)

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**11:00–11:30** Café descanso – Hall

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**11:30–13:00 Sesión Especial: Jóvenes investigadoras e investigadores** – Salón de Actos

**13:00–14:00 Sesiones paralelas de comunicaciones orales**

**Sesión C01: Métodos no paramétricos y semiparamétricos I** – Salón de Actos

**Sesión C02: Estadística Bayesiana** – Aula A3I

**Sesión C03: Estadística espacial y espacio-temporal I** – Aula A4I

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**14:00–15:30** Almuerzo

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**15:30–17:30 Sesión de pósteres** – Patio exterior

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**17:30–20:00 Actividades sociales**

*Paseo en barco por la Ría de Vigo*

*Bus turístico por Vigo*

**8:30–9:30 Registro y entrega de documentación**

**9:30–10:00 Acto de apertura** – Salón de Actos

**10:00–11:00 Conferencia plenaria** – Salón de Actos

*Comparison of different approaches to estimate linkage disequilibrium extent in crop breeding populations*

María Gabriela Cendoya (Universidad Nacional de Mar del Plata)

Moderador: Javier Roca Pardiñas

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**11:00–11:30** Café descanso – Hall

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**11:30–13:00 Sesión Especial: Jóvenes investigadoras e investigadores** – Salón de Actos

Moderadora: Irantzu Barrio

11:30 *Joint quantile autoregressive modeling for univariate and spatial time-series data in a Bayesian framework.* Jorge Castillo-Mateo, Alan E. Gelfand, Jesús Asin, Ana C. Cebrian

11:45 *knobi: an R package for estimating effects of environmental variability on the fish stocks production.* Anxo Paz, Marta Cousido-Rocha, M. Grazia Pennino, Santiago Cerviño

12:00 *Microbiome compositional data analysis for survival studies.* Meritxell Pujolasos, Antoni Susín, M. Luz Calle

12:15 *Contribution of blood DNA methylation to the association between smoking and lung cancer.* Arce Domingo-Relloso, Roby Joehanes, Zulema Rodriguez-Hernandez, Lies Lahousse, Karin Haack, M. Daniele Fallin, Miguel Herreros-Martinez, Jason G. Umans, Lyle G. Best, Tianxiao Huan, Chunyu Liu, Jiantao Ma, Chen Yao, Allan Jerolon, Jose D. Bermudez, Shelley A. Cole, Dorothy A. Rhoades, Daniel Levy, Ana Navas-Acien, Maria Tellez-Plaza

12:30 *Generalized linear models with interval-censored covariates.* Andrea Toloba, Klaus Langohr, Guadalupe Gómez Melis

**13:00–14:00 Sesiones paralelas de comunicaciones orales**

**Sesión C01: Métodos no paramétricos y semiparamétricos I** – Salón de Actos

Moderadora: María Durbán

13:00 *Semi-parametric generalized estimating equations for repeated measurements in crossover designs.* Nelson Cruz, Oscar Melo, Carlos Martínez

13:15 *Variable selection with LASSO regression for complex survey data.* Amaia Iparagirre, Thomas Lumley, Irantzu Barrio, Inmaculada Arostegui

13:30 *Generalized spatial conditional overdispersion models: Semiparametric extensions proposals.* Mabel Morales Otero, María Durbán, Vicente Núñez Antón

**Sesión C02: Estadística Bayesiana – Aula A3I**

Moderadora: María Eugenia Castellanos

- 13:00 *Spatio-temporal modeling: A flexible Bayesian approach.* Jessica Pavani, Fernando Quintana
- 13:15 *Bayesian variable selection with missing data: An application to cardiology.* Stefano Cabras, María Eugenia Castellanos, Anabel Forte, Gonzalo García-Donato, Alicia Quirós
- 13:30 *Overdispersed nonlinear regression models.* Edilberto Cepeda-Cuervo, María Victoria Cifuentes

**Sesión C03: Estadística espacial y espacio-temporal I – Aula A4I**

Moderadora: Rosa M. Crujeiras

- 13:00 *A Shiny App for spatial species distribution modeling.* Mario Figueira, David Conesa, Antonio López-Quílez
- 13:15 *A hierarchical spatial model for small area estimation of survey-based ordinal variables.* Miguel Ángel Beltrán Sánchez, Miguel Ángel Martínez Beneito, Ana Corberán Vallet
- 13:30 *Joint modelling of several diseases for high-dimensional spatial data using a multivariate scalable Bayesian approach.* A. Adin, T. Goicoa, G. Vicente, M.D. Ugarte

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**14:00–15:30** Almuerzo

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**15:30–17:30 Sesión de pósteres – Patio exterior**

Moderadora: Irantzu Barrio

1. *Bayesian estimation of transition probabilities in multi-state models: study of hospitalization of severe influenza cases.* Lesly Acosta, Carmen Armero
2. *Assessing risk factors of evolutive health-related quality-of-life and mortality: A joint modelling approach.* Urko Aguirre, Adrian Lopez, Marta Jiménez Toscano, Jose María Quintana, Maximino Redondo
3. *Impact of the evolution of the sea surface temperature on the coasts of the Valencia Region.* Laura Aixalà-Perelló, Xavier Barber, Antonio López-Quílez
4. *A zero-inflated Bayesian modeling of sports injury risk incidences.* Oihane Álvarez, Lore Zumeta-Olaskoaga, Joaquín Martínez-Minaya, Dae-Jin Lee
5. *Is my vagina stressed? Bayesian Dirichlet models to investigate the effect of stress on vaginal microbioma in a Spanish cohort.* Rubén Amorós, Joaquín Martínez-Minaya, Blanca Sarzo, Rima Abumallouh, Giuseppe D'Auria, Natalia Marin, Raúl Beneyto, Maria-Jose Lopez-Espinosa
6. *Impact of the environment on health status of intensive care unit patients: functional data analysis using wearable monitoring systems.* Juan A. Arias-Lopez, Carmen Cadarso-Suarez, Manuel Oviedo de la Fuente, Pablo Jesus Lopez-Soto

7. *Genome simulation study in GWAS models with heteroscedasticity across management regimens.* Eugenia Bortolotto, Cecilia Bruno
8. *Statistical techniques and software used in the field of Clinical Medicine: A bibliographic review.* Gerard Boxo, Rosa Abellana, Josep L. Carrasco
9. *Factor analytic biplot in multienvironment trials with incomplete data.* Cecilia Bruno, Mónica Balzarini
10. *Proposal of statistical matching methodology to fuse data from different survey samples.* Naroa Burreso Pardo, Edorta Arana Arrieta, Libe Mimenza Castillo, Irantzu Barrio Beraza, Josu Amezaga Albizu
11. *A Bayesian Gompertz approach to evaluate the optimal surgical space for laparoscopic surgery.* Gabriel Calvo, Carmen Armero, Virgilio Gómez-Rubio, Guido Mazzinari
12. *Managing REDCap Data: The R package REDCapDM.* João Carmezim, Pau Satorra, Judith Peñafiel, Esther García-Lerma, Natalia Pallarés, Naiara Santos, Cristian Tebé
13. *Comparison of Statistical Approaches for Interval-Censored Data: Analysis of data from an HIV-negative MSM Cohort.* Inês Carvalho, Leandro Duarte, Carla Moreira, Luís Machado, Ana Paula Amorim, Miguel Rocha, Paula Meireles
14. *Development of indices to quantify community capitals.* Fernando Casanoves, Angie Paola Bernal Núñez, David Ricardo Gutiérrez Suárez, Héctor Eduardo Hernández Núñez, Isabel Gutiérrez, Juan Carlos Suárez Salazar, Raúl E. Macchiavelli
15. *Analyzing unreplicated trials in precision agriculture.* Mariano Córdoba, Pablo Paccioretti, Mónica Balzarini
16. *Study of the performance of data-poor fish stock assessment methods.* Marta Cousido-Rocha, Helena Nina del Rio, Santiago Cerviño, Anxo Paz, David José Nachón, Maria Grazia Pennino
17. *Temperature curves: A functional-circular view.* Rosa M. Crujeiras, Andrea Meilán-Vila, Mario Francisco-Fernández
18. *On the modelization of count data with excess zeros. Negative Binomial and Poisson regression models for COVID-19 data.* Irene de León, Josu Najera-Zuloaga, Irantzu Barrio, Jose María Quintana
19. *Air quality analysis with supervised learning algorithms in Coyhaique, Chile.* Mailiu Díaz Peña, Felipe A. Medina Marín, Ana Karina Maldonado Alcaíno, Dante Cáceres Lillo
20. *Modelling the COVID-19 ICU occupancy with area-level random regression coefficient Poisson models.* Naomi Diz-Rosales, María José Lombardía, Domingo Morales
21. *Smoothing estimation of the functional ROC Curve.* Graciela Estévez-Pérez
22. *Software tools at the Biostatnet-Granada node.* Pedro Femia, Miguel Angel Montero, Juan Melchor, Miguel Angel Luque, Juan de Dios Luna, Jordi Martorell, Juan Antonio Villatoro, Pedro Carmona-Saez
23. *Impact of imbalance data on logistic regression models to predict risk plant disease.* Juan Manuel Fiore, Franco Suarez, Monica Balzarini, Cecilia Bruno
24. *Correction for baseline covariates in clinical trials and observational studies.* Matilde Francisco, Klaus Langohr

25. *Mapping MusiQoL onto the EQ-5D-5L utility index in patients with multiple sclerosis.* Leire Garmendia Bergés, Iñigo Gorostiza Hormaetxe, Alfredo Rodríguez Antigüedad, Mar Mendibe Bilbao, Irantzu Barrio Beraza, Amaia Bilbao Gonzalez
26. *Estimating the probability of discharge among Covid-19 hospitalizations using cure models.* Ida Höglund Persson, Klaus Langohr, Guadalupe Gómez Melis
27. *High-dimensional unsupervised and/or supervised problems: a distance-based depth prototypes fuzzy approach.* Itziar Irigoien, Susana Ferreiro, Basilio Sierra, Concepción Arenas
28. *Dealing with spatiotemporal dependence in spatial stock assessment models.* Francisco Izquierdo, Marta Cousido-Rocha, Santiago Cerviño, Maria Grazia Pennino
29. *Modelling spatial distribution of small pelagic fishes? biomass using boosted regression trees hurdle models.* Laura Julià, Maria Grazia Pennino, Jose M. Bellido, Marta Coll, Francisco Ramírez
30. *COVID-19 reinfections study from different statistical approaches.* Nere Larrea, Leire Garmendia, Irantzu Barrio, Klaus Langohr, Cristian Tebe, Guadalupe Gómez Melis, Jose María Quintana
31. *Utility of the integrative analysis for the identification of microRNA for diagnosis.* Julieth López-Castiblanco, David Niño, Liliana López-Kleine, Adriana Rojas, Litzy Bermúdez
32. *Statistical models for forensic voice comparison from a phonetic acoustic approach.* Fernanda López-Escobedo, N. Sofía Huerta-Pacheco
33. *Colliders in Applied Biomedical Research: an educational interactive web application.* Miguel Ángel Luque-Fernández, Pedro Femia, Miguel Ángel Montero-Alonso, Juan M. Melchor, Pedro Carmona-Sáez, Juan de Dios Luna del Castillo
34. *Response surface survival analysis methodology for block design.* Oscar Orlando Melo Martínez, Ana Patricia Chávez, Nelson Alirio Cruz
35. *Beta regression model zero-inflated to measure the incidence of disease in tomato plants.* Sandra Esperanza Melo Martínez, Oscar Orlando Melo Martínez, Carlos Eduardo Melo Martínez
36. *Age at menarche and its relationship to body mass index among adolescent girls in Chile: a joint modeling approach.* Cristian Meza, Danilo Alvares, Susana Eyheramendy
37. *A bivariate zero-inflated Poisson regression model for partial body radiation exposures.* Dorota Młynarczyk, Pedro Puig, Carmen Armero, Virgilio Gómez-Rubio
38. *Are green spaces contributing to gentrification in Valencia city?* Susana Morant-Garcia, David V. Conesa, Francisco Palmí-Perales
39. *Longitudinal study on nutritional profile of oropharyngeal cancer patients according to HPV status: a challenge for the statisticians.* F. Morey, M. Choulli, R. Alvarez, X. Wang, B. Quirós, S. Tous, A.R. González-Tampán, M.A. Pavón, M. Gomà, M. Taberna, R. Mesia, L. Alemany, M. Oliva, M. Mena, L. Arribas
40. *Analysis of the health-related quality of life through PROreg R package: A case study of patients with eating disorders.* Josu Najera-Zuloaga, Dae-Jin Lee, Inmaculada Arostegui

41. *Some linear models to biodiversity data from organic carbon in Puebla, Mexico.* Ana Oroza, Luis F. Grajales, Gladys Linares
42. *A comparison of infectious disease forecasting combinations methods.* Manuel Oviedo-de la Fuente, Rubén Fernández-Casal, José Antonio Vilar
43. *Dynamic zoning of agricultural plots based on satellite information.* Pablo Paccioretti, Marcelo Scavuzzo, Mónica Balzarini
44. *Statistical approaches for the integration of omics data.* Carlos J. Peña, Juan Antonio Carbonell, Sheila Zúñiga Trejos
45. *Multivariate indices for experimental data: A comparative evaluation.* Fabricia Queiroz Mendes, Marcelo da Silva Maia, André Mundstock Xavier de Carvalho
46. *ICD9 to ICD10 update: effects in SVM fitting & prediction.* Elies Ramon, Víctor Moreno
47. *Potential risk factors of injuries in professional football using Multivariate Survival Trees: A comparison of female vs. male football players.* Jone Renteria, Lore Zumeta-Olaskoaga, Eder Bikandi, Jon Larruskain, Dae-Jin Lee
48. *Dealing with batch effects in metabolomics data: A comparison of ComBat, Wavel-CA2, and a novel residuals method for classification.* Blanca Rius-Sansalvador, Elies Ramon, Mireia Obón-Santacana, Victor Moreno
49. *Effectiveness and safety of tetanus vaccine administration by intramuscular vs. subcutaneous route in anticoagulated patients: Randomized clinical trial in primary care.* Sara Rodríguez Pastoriza, Martín Fernández Pérez, Ana Clavería Fontán, Javier Roca Pardiñas
50. *A simplified model for the characterization of blood alcohol elimination.* M.T. Santos Martín, J.M. Rodríguez Díaz, I. Mariñas del Collado
51. *A new testing procedure for determining groups in cumulative incidence curves.* Marta Sestelo, Luis Meira-Machado, Nora M. Villanueva, Javier Roca-Pardiñas
52. *Enhancing urban public transportation efficiency through accurate passenger volume prediction: A Bayesian spatial-temporal model applied to Beijing Metro.* He Sun, Stefano Cabras
53. *Applied statistics as an essential tool for the success of the relationship between epidemiology and clinics: the study of the involvement of Human Papillomavirus infection with oropharyngeal cancer.* Sara Tous, Miren Taberna, Marisa Mena, Beatriz Quirós, Francisca Morey, Hisham Mehanna, Laia Alemany

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**17:30–20:00 Actividades sociales**

*Paseo en barco por la Ría de Vigo*

*Bus turístico por Vigo*

**Jueves**  
**29 de junio**

## Resumen del día

### 9:00–10:00 Sesiones paralelas de comunicaciones orales

**Sesión C04: Bioinformática** – Salón de Actos

**Sesión C05: Estimación y contrastes** – Aula A3I

**Sesión C06: Análisis de supervivencia I** – Aula A4I

### 10:00–11:00 Conferencia plenaria – Salón de Actos

*Statistical boosting for biomedical research: strengths and limitations*

Andreas Mayr (Universität Bonn)

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### 11:00–11:30 Café descanso – Hall

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### 11:30–12:45 Sesiones paralelas de comunicaciones orales

**Sesión Especial: BIOSTATNET** – Salón de Actos

**Sesión C07: Epidemiología y COVID I** – Aula A3I

**Sesión C08: Análisis de supervivencia II** – Aula A4I

### 12:45–14:00 Sesión Especial: Homenaje a Carmen Cadarso – Salón de Actos

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### 14:00–15:30 Almuerzo

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### 15:30–16:45 Sesiones paralelas de comunicaciones orales

**Sesión Especial: Sociedad Española de Epidemiología** – Salón de Actos

**Sesión C09: Métodos estadísticos en medicina I** – Aula A3I

**Sesión C10: Estadística espacial y espacio-temporal II** – Aula A4I

### 16:45–18:00 Sesiones paralelas de comunicaciones orales

**Sesión C11: Métodos no paramétricos y semiparamétricos II** – Salón de Actos

**Sesión C12: Métodos estadísticos en biología** – Aula A3I

**Sesión C13: Métodos estadísticos en agricultura y ecología** – Aula A4I

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### 18:00–18:30 Café descanso – Hall

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### 18:30–19:30 Asamblea de la SEB – Salón de Actos

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### 21:00–00:00 Cena – Hotel Pazo Los Escudos

**9:00–10:00 Sesiones paralelas de comunicaciones orales**

**Sesión C04: Bioinformática – Salón de Actos**

Moderador: Esteban Vegas

9:00 *Are my counts Poisson?* Jacobo de Uña-Álvarez, María Dolores Jiménez-Gamero

9:15 *Minimum metabolic information for the reconstruction of the evolution of metabolisms.* Irene García Mosquera, Bessem Chouaia, Mercè Llabrés, Marta Siemeoni

9:30 *Deep neural learning to predict mRNA editing.* Jesús Peñuela, Michal Zawisza, Carlos Herrera, Ferran Reverter, Esteban Vegas, Jordi García

**Sesión C05: Estimación y contrastes – Aula A3I**

Moderadora: Ana Pérez González

9:00 *A new score test for distinguishing between the zero-inflated Poisson and the two-component Poisson mixture distribution.* Anabel Blasco-Moreno, Pere Puig

9:15 *Unbiased estimators of kappa coefficients for two raters.* Antonio Martín Andrés, María Álvarez Hernández

9:30 *To trim or not to trim, that is the question.* Pere Puig

**Sesión C06: Análisis de supervivencia I – Aula A4I**

Moderadora: María del Carmen Iglesias

9:00 *Mixture cure models with vector and functional covariates.* Beatriz Piñeiro-Lamas, Ricardo Cao, Ana López-Cheda

9:15 *A simple procedure for testing the assumption of independent censoring under the mixture cure model when the cure status is partially known.* Wende Clarence Safari, Ignacio López-de-Ullibarri, María Amalia Jácome

9:30 *Inference under a second order Markov model.* Guadalupe Gómez Melis, Mireia Besalú Mayol

**10:00–11:00 Conferencia plenaria – Salón de Actos**

*Statistical boosting for biomedical research: strengths and limitations*

Andreas Mayr (Universität Bonn)

Moderadora: María Xosé Rodríguez Álvarez

**11:00–11:30 Café descanso – Hall**

**11:30–12:45 Sesiones paralelas de comunicaciones orales**

**Sesión Especial: BIOSTATNET – Salón de Actos**

Moderador: David Conesa Guillén

- 11:30 *BIOSTATNET: advancing in the research of excellence in biostatistics at national and international level.* David Conesa (on behalf of the whole Biostatnet Network)
- 11:45 *A joint modelling approach for Health-Related Quality of Life and survival analysis of a 5-year follow-up study of COPD patients.* Cristina Galán-Arcicollar, Josu Najera-Zuloaga, Dae-Jin Lee, Cristobal Esteban, Inmaculada Arostegui
- 12:00 *Shared parameter models for the analysis of randomized clinical trials whose primary endpoint is a normally distributed longitudinal response.* Alberto García-Hernández, Teresa Pérez Pérez, María del Carmen Pardo Llorente, Dimitris Rizopoulos
- 12:15 *A Bayesian competing risks survival model to study the cause of death in patients with heart failure.* Jesús Gutiérrez-Botella, Carmen Armero, María Pata, Thomas Kneib, Francisco Gude-Sampedro

**Sesión C07: Epidemiología y COVID I – Aula A3I**

Moderador: Luis Meira-Machado

- 11:30 *Studying the effect of COVID in suicide-related emergency calls.* Pablo Escobar, Miriam Marco, Antonio López, María Montagud, Marisol Lila, Enrique Gracia
- 11:45 *A study on group bias in healthcare outcomes for nursing home residents during the COVID-19 pandemic in the Basque Country.* Hristo Inouzhe, Irantzu Barrio, María Xosé Rodríguez-Álvarez, Paula Gordaliza, Itxaso Bengoechea, José María Quintana
- 12:00 *Remdesivir in the treatment of COVID-19: An Inverse Probability of Treatment Weighting analysis.* Cristian Tebe, Natalia Pallares, Klaus Langohr, Guadalupe Gomez Melis, Sebastia Videla, Jordi Carratala

**Sesión C08: Análisis de supervivencia II – Aula A4I**

Moderadora: Guadalupe Gómez Melis

- 11:30 *Modelling recurrent fragility fracture events.* Esther García-Lerma, Cristian Tebé, Klaus Langohr, Guadalupe Gómez Melis
- 11:45 *Bayesian zero-inflated multi-state cure models via INLA.* Fran Llopis-Cardona, Carmen Armero, Gabriel Sanfélix-Gimeno
- 12:00 *How do past training exposures affect injury risk in football?* Lore Zumeta-Olaskoaga, Andreas Bender, Dae-Jin Lee
- 12:15 *Empirical power of CoxCombo test under uncertain proportional hazards: A simulation study.* Jordi Cortés Martínez, Marta Bofill Roig, Guadalupe Gómez Melis

**12:45–14:00 Sesión Especial: Homenaje a Carmen Cadarso** – Salón de Actos

Moderador: Javier Roca Pardiñas

12:45 *Carmen Cadarso como alumna de doctorado. Aspectos notables de su trabajo de tesis doctoral en la Bioestadística.* Wenceslao González-Manteiga

13:05 *Una vida para la bioestadística.* Thomas Kneib

13:25 *Carmen Cadarso: mi maestra y mentora.* Jenifer Espasandín

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**14:00–15:30 Almuerzo**

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**15:30–16:45 Sesiones paralelas de comunicaciones orales**

**Sesión Especial: Sociedad Española de Epidemiología** – Salón de Actos

Moderador: Miguel Ángel Martínez Beneito

15:30 *Statistical considerations for analysing data derived from longitudinal cohort studies.* Rocío Fernández-Iglesias, Pablo Martínez-Cambor, Ana Fernández-Somoano

15:45 *Reconstruction of smoking prevalence in Spain by sex and age groups in the period 1991-2020.* Carla Guerra-Tort, Esther López-Vizcaíno, María Isolina Santiago-Pérez, Julia Rey-Brandariz, Leonor Varela, Cristina Candal, Alberto Ruano-Ravina, Mónica Pérez-Ríos

16:00 *Association of plasma metabolomic compounds with the incidence of cardiovascular endpoints in the Hortega Follow-Up Study.* Zulema Rodriguez-Hernandez, Pilar Casanovas, Marta Galvez-Fernandez, Vannina Gonzalez-Marrachelli, Arce Domingo-Relloso, Maria Grau-Perez, Laisa Briongos-Figuero, Juan C. Martin-Escudero, Maria Tellez-Plaza, Josep Redon, Daniel Monleon

16:15 *Bayesian-spatial distributed lag non-linear models: A temperature-mortality case study in Barcelona.* Marcos Quijal-Zamorano, Miguel A. Martinez-Beneito, Joan Ballester, Marc Marí-Dell'Olmo

**Sesión C09: Métodos estadísticos en medicina I** – Aula A3I

Moderadora: Marta Bofill Roig

15:30 *Competitive risk models in early warning systems for in-hospital deterioration: the role of missing data imputation.* Juan Carlos Espinosa Moreno, Fernando García García, Dae-Jin Lee, María J. Legarreta Olabarrieta, Susana García Gutiérrez, Naia Mas Bilbao

15:45 *Association between anthropometric status at birth and postnatal brain and bone growth trajectories in infants: evidence for brain-sparing effect.* Tomás González Garello, Gerardo Cueto, Jimena Barbeito, Noelia Bonfili, Paula González, Pablo Nuñez, Adriana Pérez

16:00 *GAMLSS models to explore the use of health services in community-dwelling older adults, according to frailty.* Maidar Mateo-Abad, Kalliopi Vrotsou, Francisco Rivas Ruiz, Itziar Vergara

16:15 *Network-based R-statistics software for longitudinal designs: application in a fMRI brain scan database.* Zeus Gracia-Tabuenca, Sarael Alcauter

**Sesión C10: Estadística espacial y espacio-temporal II – Aula A4I**

Moderador: Luis Fernando Grajales Hernández

15:30 *Generalized additive model applied to principal component analysis of geographic data.* Francisco de Asís López, Javier Roca-Pardiñas, Celestino Ordóñez

15:45 *Statistical models for the analysis of temporal patterns in work-related traffic injuries.* Iñigo Elviro, Jesús Asín, Jorge Castillo-Mateo, Juan J. Aguilar

16:00 *A retrospective analysis of alcohol-related emergency calls to the ambulance service in Galicia.* María José Ginzo Villamayor, Paula Saavedra Nieves, Dominic Royé, Francisco Caamaño Isorna

16:15 *Monitoring intimate partner violence against women with spatio-temporal hierarchical structures.* Antonio López-Quílez, Pablo Escobar, María Montagud, Miriam Marco, Marisol Lila, Enrique Gracia

**16:45–18:00 Sesiones paralelas de comunicaciones orales**

**Sesión C11: Métodos no paramétricos y semiparamétricos II – Salón de Actos**

Moderadora: Marta Sestelo

16:45 *Smooth  $k$ -sample tests under left truncation.* Adrián Lago, Ingrid Van Keilegom, Juan Carlos Pardo-Fernández, Jacobo de Uña-Álvarez

17:00 *An asymptotic lack-of-fit test for multiple quantile regression.* Mercedes Conde-Amboage, César Sánchez-Sellero

17:15 *Confidence intervals for the length of the ROC curve based on a smooth estimator.* Pablo Martínez-Cambor

17:30 *Directional density-based clustering.* Paula Saavedra-Nieves, Martín Fernández-Pérez

**Sesión C12: Métodos estadísticos en biología – Aula A3I**

Moderador: Pere Puig

16:45 *Frequentist and Bayesian compositional model to analyse longitudinal microbiome data.* Irene Creus Martí, Andrés Moya, Francisco José Santonja

17:00 *Bayesian additive regression trees (BART) applied to global scale species distribution models (SDMs): comparing present and future projections.* Alba Fuster-Alonso, M. Grazia Pennino, Xavier Barber, J. Maria Bellido, David Conesa, Antonio López-Quílez, Jeroen Steenbeek, José Carlos Baez-Barrionuevo, Villy Christensen, Marta Coll

17:15 *Statistical classification of potential radial glia cells based on nuclear shape measures after mechanical induction from astrocyte cultures.* José Pablo Soriano-Esqué, Carlos Borau, Jesús Asín, José Manuel García-Aznar, Soledad Alcántara

17:30 *Modeling the propagation of an epidemic in a stochastic SVIS model when a re-vaccination of the susceptible population is considered.* María Gamboa Pérez, María Jesús López-Herrero

**Sesión C13: Métodos estadísticos en agricultura y ecología – Aula A4I**

Moderador: Urko Aguirre

- 16:45 *Evaluation of management plans for almond leaf scorch disease in Alicante.* Martina Cendoya, Elena Lázaro, Ana Navarro-Quiles, Antonio López-Quílez, David Conesa, Antonio Vicent
- 17:00 *Variable selection strategies applied to identify climatic variables impacting the detection of crop diseases.* Franco Suarez, Juan Manuel Fiore, Mónica Balzarini, María de la Paz Gimenez-Pecchi, Cecilia Bruno
- 17:15 *When Ecological individual heterogeneity models and large data collide: An Importance Sampling approach.* Blanca Sarzo, Ruth King, Víctor Elvira
- 17:30 *Extreme events in the framework of species distribution models: a Bayesian approach.* Laura Aixalà, Xavier Barber, David V. Conesa, Antonio López-Quílez
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**18:00–18:30** Café descanso – Hall

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**18:30–19:30** **Asamblea de la SEB** – Salón de Actos

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**21:00–00:00** **Cena** – Hotel Pazo Los Escudos

**Viernes**  
**30 de junio**

## Resumen del día

**10:00–11:30 Sesión Especial: Iberoamericana** – Salón de Actos

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**11:30–12:00** Café descanso – Hall

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**12:00–13:00 Sesiones paralelas de comunicaciones orales**

**Sesión C14: Ensayos clínicos** – Salón de Actos

**Sesión C15: Epidemiología y COVID II** – Aula A3I

**Sesión C16: Estadística espacial y espacio-temporal III** – Aula A4I

**13:00–14:00 Sesiones paralelas de comunicaciones orales**

**Sesión C17: Métodos estadísticos en genética y medicina forense** – Salón de Actos

**Sesión C18: Métodos estadísticos en medicina II** – Aula A3I

**Sesión C19: Análisis multivariante y análisis de datos funcionales** – Aula A4I

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**14:00–15:30** Almuerzo

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**15:30–16:45 Sesiones paralelas de comunicaciones orales**

**Sesión Especial: Italia-Portugal** – Salón de Actos

**Sesión C20: Epidemiología y COVID III** – Aula A3I

**Sesión C21: Análisis de datos longitudinales** – Aula A4I

**16:45–17:45 Conferencia plenaria** – Salón de Actos

*Past, present and future of Bayesian biostatistics*

Anabel Forte (Universitat de València)

**17:45–19:00 Acto de clausura** – Salón de Actos

**10:00–11:30 Sesión Especial: Iberoamericana – Salón de Actos**

Moderador: Raúl E. Macchiavelli

- 10:00 *Retos en el análisis de datos de RNAseq de célula única.* Liliana López Kleine
- 10:15 *SPEED Stat: an Excel package for teaching experimental statistics.* André-Mundstock Xavier de Carvalho, Fabrícia Queiroz Mendes
- 10:30 *Maximizing efficiency in platform trials with shared controls: Optimal allocation strategies.* Marta Bofill Roig, Ekkehard Glimm, Tobias Mielke, Martin Posch
- 10:45 *Modelación estadística y aprendizaje automático para predicción genómica en mejoramiento genético vegetal.* Mónica Balzarini
- 11:00 *A two-stage approach for Bayesian joint models: Reducing complexity while maintaining accuracy.* Danilo Alvares, Valeria Leiva-Yamaguchi

**11:30–12:00** Café descanso – Hall

**12:00–13:00 Sesiones paralelas de comunicaciones orales**

**Sesión C14: Ensayos clínicos – Salón de Actos**

Moderadora: María Amalia Jácome

- 12:00 *An extension of the individual causal association for continuous non-normal endpoints in a causal inference framework.* Gokce Deliorman, Ariel Alonso Abad, María del Carmen Pardo
- 12:15 *Statistical modeling to adjust for time trends in platform trials utilising non-concurrent controls.* Pavla Krotka, Martin Posch, Marta Bofill Roig
- 12:30 *Stepped Wedge Randomized Trial: a simulation study.* Naiara Santos, Cristian Tebe

**Sesión C15: Epidemiología y COVID II – Aula A3I**

Moderador: Hristo Inouzhe

- 12:00 *A model to predict ceiling of care in COVID-19 hospitalized patients.* Natàlia Pallarès, Hristo Inouzhe, Irantzu Barrio, Daniel Fernández, Jordi Cortés, Klaus Langohr, Sebastià Videla, Guadalupe Gómez Melis, Cristian Tebé
- 12:15 *COVID-19 patient profiles in the Basque Country: A clustering approach.* Lander Rodriguez, Irantzu Barrio, Daniel Fernández, Jose M. Quintana-Lopez
- 12:30 *Covid-19 in Catalonia: small area estimation of cases, hospitalization, and a causal analysis of the effect of vaccination.* Pau Satorra, Cristian Tebé, Laura Igual

**Sesión C16: Estadística espacial y espacio-temporal III – Aula A4I**

Moderador: Xavier Barber

- 12:00 *Homicides of social leaders, human rights defenders and signatories of the peace agreement in Colombia 2021-2022 - A first spatial model.* John Puerto, Fernando Grajales

- 12:15 *Bayesian inference for multivariate spatial models with R-INLA.* Francisco Palmí-Perales, Virgilio Gómez-Rubio, Roger S. Bivand, Michela Cameletti, Håvard Rue
- 12:30 *Disease risk estimation in small areas accounting for local spatial and spatio-temporal discontinuities.* Guzmán Santafé, Aritz Adin, María Dolores Ugarte

**13:00–14:00 Sesiones paralelas de comunicaciones orales**

**Sesión C17: Métodos estadísticos en genética y medicina forense** – Salón de Actos

Moderadora: M. Luz Calle

- 13:00 *Compositional data analysis to explore the association between joint brain volumetric variation and genetic predisposition to Alzheimer's disease.* Patricia Genius, M.Luz Calle, Raffaele Cacciaglia, Arcadi Navarro, Juan Domingo Gisbert, Natalia Vilor-Tejedor
- 13:15 *Reference standards based on statistical methods for human identification in Mexico: Forensic Science Apps.* N. Sofía Huerta-Pacheco, Ivet Gil-Chavarría, Chantal Loyzance, Mirsha Quinto-Sánchez
- 13:30 *Genetically predicted telomere length and Alzheimer's Disease endophenotypes: a Mendelian Randomization study.* Blanca Rodriguez-Fernandez, Natalia Vilor-Tejedor, Marta Crous-Bou

**Sesión C18: Métodos estadísticos en medicina II** – Aula A3I

Moderador: Klaus Langohr

- 13:00 *Development of imaging biomarkers for ALS (Amyotrophic Lateral Sclerosis) using multivariate statistical techniques and machine learning.* Jose Miguel Carot-Sierra, Pablo O. Gil-Chong, Elena Vázquez-Barrachina, Leonor Cerdá-Alberich
- 13:15 *Love Plot: an illustrative method to show the imbalance between groups.* Judith Peñafiel, Natàlia Pallarés, Cristian Tebé
- 13:30 *Assessing the diagnostic ability of medical tests with status defined by right-censored data at a specific time t.* Sara Perez-Jaume, Jaume Mora, Josep L. Carrasco

**Sesión C19: Análisis multivariante y análisis de datos funcionales** – Aula A4I

Moderador: Dae-Jin Lee

- 13:00 *A new methodology for classification of partially observed curves: an application to aneurysm patients.* Pavel Hernández-Amaro, Maria Durban, M. Carmen Aguilera-Morillo
- 13:15 *Partial Least Squares for binary data and its associated biplot applied to the classification of Colletotrichum Graminicola strains.* Laura Vicente-Gonzalez, Jose Luis Vicente-Villardón
- 13:30 *Multivariate joint analysis of reading habits and practices among the staff of public libraries in Mexico.* A. Olivia Jarvio Fernández, Mario Miguel Ojeda Ramírez

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**14:00–15:30** Almuerzo

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**15:30–16:45 Sesiones paralelas de comunicaciones orales**

**Sesión Especial: Italia-Portugal – Salón de Actos**

Moderadora: Anabel Forte

- 15:30 *AUC estimation in logistic regression with missing data: A case study.* Susana Rafaela Martins, Jacobo de Uña-Álvarez, María del Carmen Iglesias-Pérez
- 15:45 *Modelling the hazard of transition into the absorbing state in the illness-death model.* Elena Tassistro, Davide Paolo Bernasconi, Paola Reborá, Maria Grazia Valsecchi, Laura Antolini
- 16:00 *A practical guide to analyzing complex survival data with Kaplan-Meier.* Luís Meira-Machado
- 16:15 *Adverse events with survival outcomes: From clinical questions to methods for statistical analysis.* Elena Tassistro, Maria Grazia Valsecchi, Davide Paolo Bernasconi, Laura Antolini

**Sesión C20: Epidemiología y COVID III – Aula A3I**

Moderador: Jordi Cortés

- 15:30 *Improvement of COVID-19 symptoms: a survival analysis study from a Portuguese cohort.* Leandro Duarte, Inês Carvalho, Carla Moreira, Luís Machado, Ana Paula Amorim, Joana Costa, Paula Meireles
- 15:45 *Predictability assessment of the first continental heat-cold-health early warning system: new avenues for human health forecasting.* Marcos Quijal-Zamorano, Desislava Petrova, Èrica Martínez-Solanas, François R. Herrmann, Xavier Rodó, Jean-Marie Robine, Hicham Achebak, Joan Ballester
- 16:00 *Estimation of patient flow in hospitals using up-to-date data. Application to bed demand prediction during pandemic waves.* Daniel García-Vicuña, Ana López-Cheda, María Amalia Jácome, Fermín Mallor
- 16:15 *Semi-Markov multistate models to analyze the disease progression of hospitalized COVID-19 patients during the first three waves in the Barcelona metropolitan area.* Klaus Langohr, Xavier Piulachs, Natàlia Pallarès, Carlota Gudíol, Cristian Tebé, Guadalupe Gómez Melis

**Sesión C21: Análisis de datos longitudinales – Aula A4I**

Moderadora: Natàlia Vilor-Tejedor

- 15:30 *Fixed and random effects selection in generalized linear mixed effects models.* Danae Carreras-García, Ana Arribas Gil, David Delgado-Gomez
- 15:45 *Bootstrap aggregation for modeling biomarkers' change across the preclinical stage of Alzheimer's disease.* Armand G. Escalante, Marta Milà-Alomà, Mahnaz Shekari, Gemma Salvadó, Paula Ortiz-Romero, Juan Domingo Gispert, Marc Suárez-Calvet, Natalia Vilor-Tejedor

16:00 *Antedependence Skew-Normal linear models for longitudinal data.* Martha Corrales-Bossio, Edilberto Cepeda-Cuervo

16:15 *Classification using a joint model of longitudinal data and binary outcomes based on the SAEM algorithm.* Cristian Meza, Maritza Márquez, Rolando de la Cruz, Claudio Fuentes

**16:45–17:45 Conferencia plenaria** – Salón de Actos

*Past, present and future of Bayesian biostatistics*

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Moderador: Danilo Alvares

**17:45–19:00 Acto de clausura** – Salón de Actos