

# **Thursday, April 25th, 2019**

## **9.30-10 Registration (Salon de Grados - Facultad de Medicina)**

### **10-10.30 Opening (Salon de Grados - Facultad de Medicina)**

Multivariate analysis and classification group of the statistics and operational research society  
- M<sup>a</sup> Purificación Galindo-Villardón, Vice-Chancellor of Postgraduate, University of Salamanca  
- José Luis Vicente-Villardón, Chair of the Organizing Committee, University of Salamanca  
- Eva Boj, Coordinator of the SEIO-AMyC Group, University of Barcelona

### **10.30-11.30 Plenary Invited Talk (Salon de Grados - Facultad de Medicina)**

Chair: José Fernando Vera

Hierarchical disjoint principal component analysis

Mauricio Vichi, Sapienza University of Rome

<http://www.dss.uniroma1.it/it/dipartimento/persone/vichi-maurizio>

Co-authors: Cavicchia, C., Vichi, M., Zaccaria, G.

### **11.30-12 Coffee Break (Aula 5 - Sótano - Facultad de Medicina)**

### **12-13.30 Invited Talks (Aula 5 - Sótano - Facultad de Medicina)**

Chair: José Luis Vicente-Villardón

On the equivalence of the GEM and Variational procedures for a latent block Poisson model  
José Fernando Vera, University of Granada

Could logratio methods be useful to analyse the generalized propensity score?

Marc Comas-Cufí, University of Girona

Co-authors: Comas-Cufí, M., Mateu-Figueras, G., Martín-Fernandez, J.A., Blanch, J., Ramos, R.

Redundancy analysis for categorical data based on logistic responses

José Luis Vicente-Villardón, University of Salamanca

### **13.30-16 Lunch**

### **16-17 Plenary Invited Talk (Salon de Grados - Facultad de Medicina)**

Chair: Marc Comas-Cufí

Inference methods for multivariate latent variable models

Albert Satorra, Pompeu Fabra University

<http://www.econ.upf.edu/~satorra/>

### **17-18 Oral session 1 (Salon de Grados - Facultad de Medicina)**

Chair: Luis Ángel García-Escudero

Obtaining fairness using optimal transport theory

Paula Gordaliza, Université Toulouse III – Paul Sabatier and University of Valladolid

Co-authors: del Barrio, E., Gamboa, F., Gordaliza, P., Loubes, J.M.

Directional multivariate quantiles: definition, guidelines, implications and advantages  
Raúl Andrés Torres, University of Valladolid

Cluster analysis with cellwise outliers  
Luis Ángel García-Escudero, University of Valladolid  
Co-authors: García-Escudero, L. A., Rivera-García, D., Mayo-Iscar, A., Ortega, J.

## **Friday, April 26th, 2019**

### **10-11 Plenary Invited Talk (Salon de Grados - Facultad de Medicina)**

Chair: Agustín Mayo-Iscar

k-quantiles clustering  
Christian Martin Hennig, University College of London  
<http://www.homepages.ucl.ac.uk/~ucakche/>

### **11-11.30 Oral session 2 (Salon de Grados - Facultad de Medicina)**

Chair: Elena María Castilla González

Attraction-repulsion clustering with applications to fairness  
Hristo Inouzhe, University of Valladolid  
Co-authors: del Barrio, E., Inouzhe, H., Loubes, J.M.

One-shot device testing under exponential distribution: a new robust approach  
Elena María Castilla, Complutense University of Madrid  
Co-authors: Castilla, E.M., Martín, N., Pardo, L., Balakrishnan, N.

### **11.30-12 Coffee Break (Hall - Facultad de Medicina)**

### **12-13.30 Poster Session (Hall - Facultad de Medicina)**

Chair: Eva Boj

The provision R package for claims reserving  
Boj, E., Costa, T., Canadell, A.  
University of Barcelona and Caixa Guissona.

Using Shiny as a tool for evaluation of health insurance pricing models  
Vargas, E., Boj, E., Costa, T.  
University of Barcelona

Claim frequency in home insurance and impact of macroeconomic variables  
Boj, E., Castañer, A., Claramunt, M.M., Costa, T., Roch, O.  
University of Barcelona

Water quality multivariate analysis: Application to Gatun Lake  
Carrasco, G., Patino-Alonso, M.C., Vicente-Galindo, M.P., Molina, J.L., Del C Castillo, M., Galindo-Villardón, M.P.

Application of the response theory to the item of the psychological well-being questionnaire of carol ryff

Cortés-Rodríguez, M., Sánchez-Barba, M., Galindo-Villardón, M.P., Jarauta-Bragulat, E.  
University of Salamanca

Contributions to Biplot analysis: Disjoint solutions and sparse HJ-Biplot

Cubilla-Montilla, M., Galindo-Villardón, P., Nieto-Librero, A.B., Vicente-Galindo, P., Torres-Cubilla, C.A.  
University of Salamanca

Alternatives to OLS in high-dimensional regression.

García-Galindo, A., Torres-Cubilla, C., Sánchez-Barba, M.  
University of Salamanca

Multivariate analysis reveals gene expression patterns altered in glioblastoma multiforme

González-García, N., Nieto-Librero, A.B., Vital A., González-Tablas, M., Galindo-Villardón, M.P.,  
Orfao, A., Tabernerero, M. D.  
University of Salamanca

Temporal stability analysis of the species-environment relationships in the region of continental Ecuador, using the STATICO muti-way method.

González-Narváez, M., Fernández-Gómez, M.J., Mendes, S., Ruiz-Barzola, O., Galindo Villardón,  
M.P.  
University of Salamanca

Algorithms of selection and prediction multivariate for ordinal data

Martínez-Regalado, J.A., Montesinos-López, O.A.  
University of Salamanca and University of Colima

Study of sustainability in Mexican companies based on the Global Reporting Initiative (GRI), applying the External Logistic Biplot

Murillo-Avalos, C., Vicente-Galindo, P., Galindo-Villardón, M.P.  
University of Salamanca and University of Colima

Clustering disjoint HJ-Biplot: A new tool for identifying patterns in data mining

Nieto-Librero, A.B., Sierra, C., González-García, N., Vicente-Galindo, M.P., Ruiz-Barzola, O.,  
Galindo-Villardón, M.P.  
University of Salamanca

Hierarchical modeling and copulas for the study of diagnostic accuracy

Pambabay-Calero, J., Bauz-Olvera, S., Nieto-Librero, A.B., Galindo-Villardón, M.P.  
University of Salamanca

Multivariate profile of the e-participation based on x-statis method

Rodríguez-Martínez, C.C., Galindo-Villardón, M.P., Nieto-Librero, A.B., García-Sánchez, I.M.  
University of Salamanca

Psychometric analysis of the assessment of the CaMir (Carles des Modeles Internes de Relations) based on The Classical Theory (CTT) vs Item-Response Theory (IRT)

Sánchez-Barba, M., Cortés-Rodríguez, M., Tejedor-Valle, M., Vicente-Galindo, M.P.  
University of Salamanca

The structural consensus tree  
Soto-Becerra, R., Vicente-Villardón, J.L.  
University of Salamanca

PLS Regression for detection of Black Sigatoka using Hyperspectral Images.  
Ugarte-Fajardo, J., Ochoa-Donoso, D., Criollo-Bonilla, R., Vicente-Villardón, J.L.  
University of Salamanca

Analysis of Uruguayan adolescents work  
Urruticoechea, A., Vernazza, E.  
Complutense University of Madrid

Multivariate analysis of the learning styles and strategies' structures in university students  
Vega-Hernández, M.C., Patino-Alonso, M.C., Galindo-Villardón, M.P.  
University of Salamanca

A graphical representation associated to permanova for binary data  
Vicente-González, L., Vicente-Villardón, J.L.  
University of Salamanca

Multivariate characterization of students of the University of Salamanca  
Zárate-Santana, Z.J., Patino-Alonso, M.C., Sánchez-García, A.B., Celestino-Sánchez, M.A.  
University of Salamanca

### **13.30-16 Lunch**

**16-18 AMyC Group Meeting / Closing (Salón de Grados - Facultad de Medicina)**