### **SCHEDULE**

# 2nd Conference on Statistics and Data Science, November 18-20, 2019

## Mercure Salvador Rio Vermelho Hotel, Salvador, BA Brazil

| Time        | Monday, 18/11/2019  | Tuesday, 19/11/2019                          | Wednesday, 20/11/2019     |
|-------------|---|--|---------------------------|
| 08:00-08:30 | 224 (2.1)   |  |                           |
| 08:30-09:00 | SC1: {Pelourinho}   | SC3: {Mercado Modelo}                        | SC3: {Mercado Modelo}     |
| 09:00-09:30 | SC2: {Mercado Modelo} Poster Session - ECD                | SC4: {Pelourinho}                            | SC4: {Pelourinho}         |
| 09:30-10:00 | Toster Session Leb  | ,  | ,                         |
| 10:00-10:30 | Coffee Break  | Coffee Break                                 | Coffee Break              |
| 10:30-11:00 |   | W1: Richard De Veaux                         | RT3: {Mercado Modelo}     |
| 11:00-11:30 | SC1: {Pelourinho}   | {Mercado Modelo}                             | K13. (Wercado Wodelo)     |
| 11:30-12:00 | SC2: {Mercado Modelo}                                     | CPS3: {Mercado Modelo}                       | KS3: Pedro Silva (Mercado |
| 12:00-12:30 | ,   | CPS4: {Pelourinho}                           | Modelo}                   |
| 12:30-13:00 | Lunch   | Lunch  | Closing Ceremony          |
| 13:00-13:30 |   |  | Lunch                     |
| 13:30-14:00 |   |  |                           |
| 14:00-14:30 | Opening Ceremony  KS1: Richard De Veaux  {Mercado Modelo} | RT2: {Mercado Modelo}                        | SC5: {Pelourinho}         |
| 14:30-15:00 |   |  |                           |
| 15:50-15:30 |   |  | SC6: {Mercado Modelo}     |
| 15:30-16:00 | Coffee Break  | Coffee Break                                 |                           |
| 16:00-16:30 | IPS1: {Mercado Modelo} IPS2: {Pelourinho}                 | CPS5: {Mercado Modelo} avansys: {Pelourinho} | Coffee Break              |
| 16:30-17:00 |   |  | SC5: {Pelourinho}         |
| 17:00-17:30 |   | Poster Session                               |                           |
| 17:30-18:00 | CPS1: {Mercado Modelo}<br>CPS2: {Pelourinho}              |  | SC6: {Mercado Modelo}     |
| 18:00-18:30 |   |  |                           |
| 18:30-19:00 | RT1: {Mercado Modelo}                                     |  |                           |
| 19:00-19:30 |   |  |                           |
|             |   |  |                           |
| 19:45-21:45 | Welcome Cocktail  |  |                           |

## KS: Keynote Speakers

- 1. **Richard D. De Veaux** (Williams College, USA; Vice-President of the American Statistical Association): *The Seven Deadly Sins of Big Data -- and How to Avoid Them*
- 2. **Pedro Luis do Nascimento Silva** (ENCE/IBGE, Brazil): *Big data: potencial, paradoxos e a importância renovada do pensamento estatístico*

# **SC: Short Courses**

- 1. **SC1 Crysttian Arantes Paixão** (Federal University of Santa Catarina, SC, Brazil): *Implementation of web crawling processes*
- 2. **SC2 Marcus Nunes** (Federal University of Rio Grande do Norte, RN, Brazil): How to simplify your statistical reports using RMarkdown
- 3. **SC3 Athos Petri Damiani** (IME and POLI, University of São Paulo, and Curso-R, SP, Brazil): *My first dashboard with Shiny*
- 4. **SC4 Makson Reis** (Federal University of Bahia, BA, Brazil): *Data literacy*
- 5. **SC5 Everaldo Guedes** (Federal University of Bahia, BA, Brazil): *An introduction to time series analysis with R*
- 6. **SC6 Lucas Mascarenhas Almeida and Tarssio Barreto** (Federal University of Bahia, Salvador, BA, Brazil): *Tidyverse: A data science introduction with R*

## **IPS: Invited Paper Sessions**

**IPS1 - Data Science, Communication & Democracy: methodological approaches** (Samuel Barros, UFRA)

- Eurico Matos and Alexandre Teles (UFBA): Classification and Opinion Mining in Digital Environments: analyzing user perceptions of mobile government applications
- Júnia Ortiz, André Rebouças, Gustavo Nunes and Laion Boaventura (UFBA): Methodological proposal for Agenda-Setting research: using Topic Modeling to understand big social data
- João Guilherme Santos (UFBA): Network analysis applied to viralization of false news: applications of algorithms for classification of WhatsApp groups
- Lucas Reis (UFBA): Blockchain and Government Services: The State of the Art of Research and Applications

#### IPS2 - Statistical and Data Sciences and Recent Applications (Francisco Louzada, ICMC, USP)

- Anderson Ara (UFBA): Bayesian Networks: Methods and Applications
- Gleici da Silva Castro Perdoná (USP): A Generalized Gamma zero-Inflated cure-rate regression model applied on obstetric healthcare
- Francisco Louzada (ICMC, USP): Statistical and Data Sciences at CeMEAI

# W: Workshop

# W1: Some tips for effective presentations

• Richard D. De Veaux (Williams College, USA)

#### **RT: Round Tables**

RT1 - How to get your paper published? (Paulo Canas Rodrigues, UFBA)

- Richard D. De Veaux (Williams College, USA)
- Francisco Louzada (ICMC, USP, Brazil)

#### RT2 - Data science and big data in Brazil (Paulo Canas Rodrigues, UFBA)

- Francisco Louzada (University of São Paulo, Brazil)
- Jalmar M F Carrasco (Federal University of Bahia, Brazil)
- Pedro Luis do Nascimento Silva (ENCE/IBGE, Brazil)
- Marcus Nunes (Federal University of Rio Grande do Norte, Brazil)

# RT3 - The role of statistics in the Era of big data (Paulo Canas Rodrigues, UFBA)

- Richard D. De Veaux (Williams College, USA; Vice-President of the American Statistical Association)
- Pedro Luis do Nascimento Silva (ENCE/IBGE, Brazil; former President of the International Statistical Institute)
- Denise Britz de Nascimento Silva (IBGE, Brazil; President of the International Association of Survey Statisticians)

# **CPS: Contributed Paper Sessions**

### **CPS1:** Machine learning methodology and applications

- Alberto Rodrigues Ferreira, Tibérius de Oliveira E Bonates and Juvêncio Santos Nobre:
   Generalized Model Trees: A new algorithm proposal for regression tasks
- Daniel de Amaral da Silva, Antonio Rafael Braga, Juvêncio Santos Nobre and Danielo Gonçalves Gomes: Clustering and Elastic Net Logistic Regression as Support Tools for Honeybee (Apis mellifera) Colonies Health Diagnosis
- Robert Sebastian Castellanos Rodriguez: Scikit-learn: Machine Learning in Python

# **CPS2:** Data science applications to the society

- Douglas Farias Cordeiro, Kátia Kelvis Cassiano and Núbia Rosa da Silva: Indicators for public policy based on the use of text mining and machine learning: a case study of the Brazil's Lava Jato Operation
- Karla Patricia Oliveira-Esquerre et al. Rise of The Young Women in Data Science: Data literacy in Public Schools
- Aline Maia, Mári Firpo, Ana Ávila and Caio Coelho: Spatial variability of rainy season onset characteristics across the São Paulo State, Brazil

#### **CPS3:** Data science in practice

- Eduardo Paes, Nelson Gouveia, Elton Correa and Jeandria Freire: A proposed method to objectively identify synchronic spatial domains of chlorophyll in the marine region of the Amazon coast using remote sensing data: a multivariate approach
- André Maranhão: Forecasts, Brazilian GDP Projections and Time Series Inference in the High-Dimension and Irregular-Time Span Context
- Matheus Carvalho, Katia Cassiano and Barbosa Talles: Machine learning for health management: a breast cancer case study in Brazil

### CPS4: Recent advances in regression and longitudinal models

- Alejandra Andrea Tapia Silva: Influence diagnostics in mixed effects logistic regression models
- Iuri Ferreira and Silvio Zocchi: Piecewise-linear regression with smooth phase-transitional functions by the assumption of random thresholds
- Ines Sousa: Joint models of longitudinal data with informative time measurements

# CPS5: Recent advances in statistics and data science

- Henrique Zaidan, Bruno Guedes and Claudio Cristino: A Computational Model for After-Sales Services
- Lucas Braga de Albuquerque and Tiberius Oliveira Bonates: Finding optimal classification rules using decision diagrams
- Denisa Mendonça, Anabela Rodrigues, Inês Sousa and Laetitia Teixeira: Joint Modelling of survival and multivariate longitudinal data in clinical research

# **Contributed Posters**

- 1. Adelmo Bertolde, Luiz Henrique Quinelato, Carolina Maia Martins Sales and Ethel Leonor Noia Maciel: Machine learning applied to the study of tuberculosis in Brazil
- 2. Alice Buarque Vieira de Mello, Maria Lima and Tatiane Ribeiro: Correção de viés das estimativas dos parâmetros de uma nova extensão da distribuição Nadarajah-Haghighi
- 3. Bruna Carvalho: Marcos Regulatórios Diante de "O Conflito Evitável" Os Ruídos Humanos na Ciência de Dados a Partir de Isaac Asimov
- 4. Caroline Fernandes and Karla Esquerre: a machine learning based approach to classify real-time optimization executions
- 5. Daniel Alba-Cuellar and Hugo Hernandez-Ramos: Early Monthly Estimation of Manufacturing Activity Level using Electric Energy Consumption data
- 6. Diego Nascimento, Taiza Santos and Francisco Louzada: Nonlinear Time Series Analysis: unfolding complexity in neuroscience
- 7. Djidenou Montcho, Rafael Izbicki and Luis Salazar: Goodness-of-fit using nonparametric full Bayesian significance test
- 8. Felipe González: Text analytics on open ended questions data. A new analysis alternative in opinion surveys
- 9. Ian Jay Serra and Daisy Lou Polestico: On extended negative binomial distribution for count data with inflated frequencies
- 10. Laion Lima Boaventura, Paulo Henrique Ferreira da Silva, Rosemeire Leovigildo Fiaccone and Francisco Louzada: New statistical process control chart for overdispersed count data based on the Bell distribution
- 11. Lucas Mascarenhas Almeida, Brenner Biasi Souza Silva and Karla Patrícia Santos Oliveira Rodriguez Esquerre: Using Random Forest to predict the BOD5 of an aerated lagoon at a pulp and paper mill
- 12. Marcela Portela Santos de Figueiredo: Alcohol consumption, smoking, and psychiatric comorbidity's relationship study
- 13. Marisol García Peña, Sergio Arciniegas Alarcón and Kaye Basford: Analysis of sunflower data from a multi-attribute genotype x environment trial in brazil
- 14. Natanael Vitor Sobral, Brenda Barbara Costa Ribeiro and Valdinei Silva de Souza: Produção Científica, Tecnológica e Acadêmica dos Programas de Pós-Graduação da Universidade Federal da Bahia representada na Plataforma Lattes do CNPq
- 15. Renato Panaro, Silvio Patricio, Vinícius Mayrink and Marcelo Costa: Modelagem Preditiva do monitoramento econômico-financeiro da ANEEL
- 16. Sergio Arciniegas Alarcón, Marisol García Peña, Wojtek Krzanowski and Decio Barbin: Multiple imputation procedures using the GabrielEigen algorithm
- 17. Silvia Ojeda and Grisel Maribel Britos On similarity and edge detection in images processing
- 18. Tatiana Felix da Matta, Anderson Ara, Lucas Eber Floriano de Oliveira and Laion Lima Boaventura: Trade-off between bias and variance: a simulation study with some machine learning models
- 19. Yan Andrade Neves and André Luiz Carvalho Ottoni: Tuning of convolutional neural networks parameters applied to traffic sign recognition