

**MATH-AMSUD 2016 SEMINAR**  
**“MATHEMATICS AND STATISTICS OF BIG DATA”**  
**Montevideo- URUGUAY**

**Date:** 10 y 11 of November of 2016

**Place:** Agencia Nacional de Investigación e Innovación – ANII

Av. Italia 620, Edificio Los Nogales.  
 Montevideo

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**INVITED SPEAKERS**

<b>Name</b>	<b>Institution</b>	<b>Country</b>	<b>Title of conference</b>
Matthieu Jonckheere	University of Buenos Aires and Conicet.	Argentina	<i>“Challenges and critical regimes for big data versions of the supermarket model”</i>
Helio Côrtes Vieira Lopes	Department of Informatics - PUC-Rio	Brazil	<i>“BusesInRio: buses as mobile traffic sensors”</i>
Felipe Tobar	Universidad de Chile	Chile	<i>“Machine Learning for Time Series: Gaussian Processes”</i>
Agustin Moreno Cañadas	Department of Mathematics National University of Colombia	Colombia	<i>“Generation of CAPTCHAs and Passdoodles as an Application of Big Data Analysis in Mathematics”</i>
Gerardo Rubino	INRIA	France	<i>“Two Big Data projects in telecommunications”</i>
Badih Gattas	Aix Marseille University	France	<i>“BIG Data: some statistical issues and some approaches”</i>
Jairo Cugliari	Université de Lyon	France	<i>“Non parametric forecasting and functional clustering using wavelets. Application to electricity demand.”</i>
Santiago Gómez	NIDTEC, Facultad Politécnica, Universidad Nacional de Asunción	Paraguay	<i>“Sample representativity comes as an aid in feature selection.”</i>
Carlos Solano	Universidad Nacional de Ingeniería	Peru	<i>“Using Big Data (and Small Data) analysis for solutions to problems of transport, agriculture, and geophysics in Peru”</i>
Mauricio Velasco	Universidad de la República (Uruguay) and Universidad de los Andes (Colombia).	Uruguay and Colombia	<i>“Compressive Sensing of signals with known priors”</i>

<b>PROGRAM</b>
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**Thursday 10th of November**

- 8:30 - 9:00 Registration of the participants
- 9:00 - 9:10 Welcoming speech
- 9:10 – 9:30 Presentation of the **Center for Analysis of Big Data** (Cabida – Uruguay) and the **Latin American Big Data Network**.
- 9:30-10:30 Conference 1: “*Machine Learning for Time Series: Gaussian Processes*”  
**Felipe Tobar**, Universidad de Chile, *Chile*
- 10:30-11:00 Coffee break
- 11:00-12:00 Conference 2: “*BusesInRio: buses as mobile traffic sensors*”  
**Helio Côrtes Vieira Lopes**, Department of Informatics - PUC-Rio, *Brazil*
- 12:00-14:00 Lunch at the ANII’s headquarters
- 14:00-15:00 Conference 3: “*Challenges and critical regimes for big data versions of the supermarket model*”  
**Matthieu Jonckheere**, University of Buenos Aires and Conicet, *Argentina*
- 15:00-16:00 Conference 4: “*Two Big Data projects in telecommunications*”  
**Gerardo Rubino**, INRIA, *France*
- 16:00-16:30 Coffee break
- 16:30-17:30 Conference 5: “*Compressive Sensing of signals with known priors*”  
**Mauricio Velasco**, Universidad de la República and Universidad de los Andes, *Uruguay and Colombia*

17:30-18:30 Poster session

- **María Jacqueline Atoche Bravo** - “*Análisis del Padrón Mapeado Localmente en Multiescala utilizando diferentes matrices de Peso*”, Instituto de Matemática y Ciencias Afines (IMCA), *Peru*
- **Gabriel Illanes** - “*Exploration and visualization of genomic data*” - Centro de Matemática, Facultad de Ciencias, Universidad de la República, *Uruguay*

- **Ignacio Ramírez** – “*Métrica para detección de fraudes en tarjetas de crédito*” - Instituto de Ingeniería Eléctrica, Facultad de Ingeniería, Universidad de la República, Uruguay
- **María Alejandra Osorio** - “*Emerging Images- based CAPTCHAs*”- Universidad Nacional de Colombia, Colombia

19:00: Cocktail of the French Embassy in Uruguay at the Hotel Cala Di Volpe

### **Friday, 11th of November**

- 8:45 – 9:00 Brief introduction
- 9:00-10:00 Conference 6: “*Non parametric forecasting and functional clustering using wavelets. Application to electricity demand*”  
**Jairo Cugliari**, Université de Lyon, France
- 10:00-11:00 Conference 7: “*BIG Data: some statistical issues and some approaches*”  
**Badih Gattas**, Aix Marseille University, France
- 11:00-11:30 Coffee break
- 11:30-12:30 Conference 8: “*Using Big Data (and Small Data) analysis for solutions to problems of transport, agriculture, and geophysics in Peru*”  
**Carlos Solano**, Universidad Nacional de Ingeniería, Perú
- 12:30-14:00 Lunch at the ANII’s headquarters
- 14:00-15:00 Conference 9: “*Generation of CAPTCHAs and Passdoodles as an Application of Big Data Analysis in Mathematics*”  
**Agustin Moreno**, Department of Mathematics National University of Colombia, Colombia
- 15:00-16:00 Conference 10: “*Sample representativity comes as an aid in feature selection*”  
**Santiago Gómez**, NIDTEC, Facultad Politécnica, Universidad Nacional de Asunción, Paraguay