PROGRAM

09:30 – 15:30 **LANET SCHOOL** – Room 14

15:30 – 16:00 REGISTRATION/WELCOME **LANET CONFERENCE** – Foyer

16:00 – 16:30 JOSÉ FERNANDO MENDES – Aula Magna
Evolution of triangulations: Hausdorff and spectral dimensions

16:30 – 17:00 GUADALUPE PERALTA – Aula Magna
Network theory to understand ecological changes

17:00 – 17:30 ANDREA BARONCHELLI – Aula Magna
Emergent social coordination and collective bias in human and LLM populations
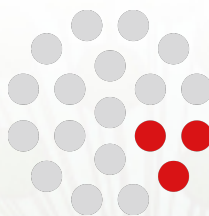
17:30 – 16:00 **WELCOME COCKTAIL** – Foyer

09:30 – 10:00 JAVIER BULDÚ– Aula Magna
TBD

10:00 – 10:30 JESÚS GÓMEZ GARDEÑEZ– Aula Magna
Recent advances on epidemic spread across metapopulations: From theory to control policies

10:30 – 11:00 **COFFEE BREAK** – Foyer

11:00 – 11:30 MARIO CHAVEZ – Aula Magna
TBD

11:30 – 12:00 PABLO BALENZUELA – Aula Magna
A theoretical framework for representing ideological bias through sentiment analysis

4th Latin American Conference in Complex Networks
July 28th – August 1st, 2025. Punta del Este, Uruguay

12:00 – 13:00   **PARALELL SESSIONS**

PA01 – Room 7

12:00 – 12:20   MOJICA-NAVA

Distributed Saddle Point Dynamics for Constrained Resource Allocation
Problems in Multiplex Networks

12:20 – 12:40   ALMENDRAL

Anticipating Explosive Synchronization via Local Ordinal Entropy Measures

12:20 – 12:40   MESA PINEDA

Una Nueva Medida para Caracterizar las Estructuras de Ciclos en Redes
Complejas

PA02 – Room 8

12:00 – 12:20   LOPEZ

Network metrics reveal ecosystem age as a key driver of food web assembly in
Greenland ponds

12:20 – 12:40   BORTHAGARAY

Hotspot areas of mass effect and regional connectivity throughout the
freshwater landscapes of South America

12:40 – 13:00   SEAMAN

Animal Social Networks and the Dynamics of Information Transmission

13:00 – 14:30   **LUNCH BREAK** – Canteen

14:30 – 16:00   **PARALELL SESSIONS**

PA03 – Room 7

14:30 – 14:50   GANCIO

Anticipating explosive synchronization in networks of Kuramoto oscillators

14:50 – 15:10   MARENCO

Online Change Point Detection for Weighted and Directed Random Dot
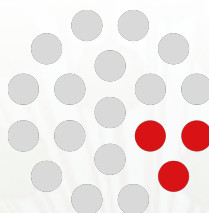Product Graphs

15:10 – 15:30   CICCHINI

Robustness analysis of public transportation networks and the relationship
between topology and mobility in latin american cities

PA04 – Room 8

14:30 – 14:50   BERNAL

Similarity, Complex Networks, and Machine Learning in Pharmacologically Relevant Molecule Discovery

14:50 – 15:10   PICASSO

Does the service sector stimulate economic growth? A novel approach with machine learning using US Input-Output data

15:10 – 15:30   GARCÍA-USUGA

Redes complejas aplicadas al análisis del transporte público intermunicipal, Caso de estudio: el deparatamento del Quindío en Colombia

15:30 – 15:50   MESA MAZO

Modelamiento de parámetros físico químicos de aguas superficiales con Redes Complejas: de estudio Departamento del Quindío-Colombia
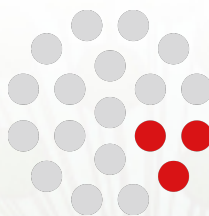
16:00 – 17:15   POSTER SESSION – Foyer

Wednesday, 30th of July

09:30 – 10:00   ERNESTO ESTRADA– Aula Magna

Towards Network Geometrodynamics. Directed Networks

10:00 – 10:30   PAOLA BERMOLEN– Aula Magna

Can we reproduce real networks? A generative latent position model for weighted random graphs

10:30 – 11:00   COFFEE BREAK – Foyer

11:00 – 11:30   JOSE JAVIER RAMASCO – Aula Magna

Capturing the linguistic diversity of societies

11:30 – 12:00   SILVIO FERREIRA – Aula Magna

TBD

12:00 – 13:00   PARALELL SESSIONS

PA05 – Room 7

12:00 – 12:20   SILVA-COSTA

Exact solutions of the Kuramoto model with asymmetric higher order interactions of arbitrary order

12:20 – 12:40   CABANA

Semantic Networks from Word Free Association: Structure and
Psycholinguistic Applications

PA06 – Room 8

12:00 – 12:20   ALVAREZ

Diffusion analysis of inflationary shocks in the Mexican economy. A study
using dynamic network analysis

12:20 – 12:40   PICHARDO

Measuring the structural evolution of street networks

12:40 – 13:00   DE LEON

Connectivity can increase biodiversity resistance to pollution or magnify its
impact if equalizing mechanisms are eroded

13:00 – 14:30   **LUNCH BREAK** – Canteen

Thursday, 31st of July

09:30 – 10:00   MARTA GONZALEZ – Aula Magna
TBD

10:00 – 10:30   PABLO MONZON– Aula Magna
Smart Grids: (complex) power system networks he role of timing on waning immunity

10:30 – 11:00   **COFFEE BREAK** – Foyer

11:00 – 11:30   JORDI SORIANO – Aula Magna

Exploring concepts of complex networks with living neurons grown in the
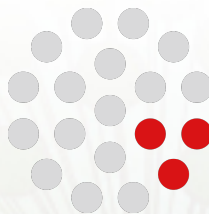laboratory

11:30 – 12:00   FLORENCIA LEONARDI – Aula Magna

Consistent community detection and model selection in the Stochastic Block
Model

| 12:00 – 13:00 | **PARALELL SESSIONS** |
| | |

PA07 – Room 7

| 12:00 – 12:20 | BETANCOURT |
| | Modelo matemático para la propagacíon del VIH en una poblacíion con estructura de edad y condiciones de riesgo asociadas |

| 12:20 – 12:40 | ANZO |
| | Impact of risk perception and mobility preferences on epidemic spread in spatially embedded agent populations |

| 12:40 – 13:00 | SALIMI |
| | Theory and Applications of Pursuit-Evasion Games |

PA08 – Room 8

| 12:00 – 12:20 | VERA-ÁVILA |
| | Electronic implementation of simplicial complexes |

| 12:20 – 12:40 | GUTIÉRREZ |
| | Generación y transmisión no trivial de información en redes de mapas logísticos diseñados electrónicamente |

| 12:40 – 13:00 | USUGA |
| | Educational Inequities and Social Mobility in Colombia: Insights from Network-Based Analysis |

| **13:00 – 14:30** | **LUNCH BREAK** – Canteen |

| **14:30 – 16:00** | **PARALELL SESSIONS** |

PA09 – Room 7

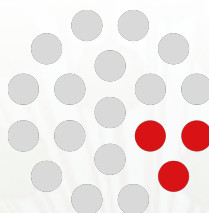| 14:30 – 14:50 | COTA |
| | Bridging nodes and their impact on epidemic activation mechanisms |

| 14:50 – 15:10 | MARESCA |
| | Threshold-Based Behavior and Epidemic Dynamics on Interacting Networks |

15:10 – 15:30	MORAES
	Visibility graph signatures for criticality in spreading phenomena on networks
15:30 – 15:50	ESTRADA
	Complex Networks for the Dynamic Study of Classical and Quantum Oscillators

PA10 – Room 8

14:30 – 14:50	CHERNOMORETZ
	Leveraging Protein Embeddings and Network Theory for Drug Repurposing
14:50 – 15:10	CASTAÑO
	Examining the Influence of ENSO on the Hydroclimatology of Colombia's Inter-Andean Region through Complex Network Analysis
15:10 – 15:30	AGUIRRE
	A distributed reconnection model for complex networks
15:30 – 15:70	CAYSSIALS
	Multiple regime switching models: theory and applications
16:00 – 17:15	**POSTER SESSION** – Foyer

Friday, 1st of August

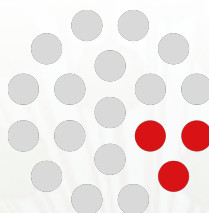| 09:30 – 10:00	RONALDO MENEZES– Aula Magna
	Violence, City Size and Geographical Isolation in African Cities
10:00 – 10:30	INMACULADA LEYVA– Aula Magna
	Lost in averaging: local and global intermittencies in complex networks
10:30 – 11:00	**COFFEE BREAK** – Foyer
11:00 – 11:30	DAVID SORIANO-PAÑOS– Aula Magna
	Eco-evolutionary constraints shape the endemicity and epidemic trajectories of rapidly evolving viruses
11:30 – 12:00	SEBASTIÁN GONÇALVES– Aula Magna
	Structure, Dynamics, and Prediction in Political Corruption Networks

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12:00 – 13:30   **PARALELL SESSIONS**

PA11 – Room 7

12:00 – 12:20   ESPINOSA

Exploration mechanisms intrinsic to semantic networks and the nuanced appraisal of lexical repetition occurrences

12:20 – 12:40   BRUM

Ultrafast Doppler and functional ultrasound of the brain: a novel research platform in Uruguay for studying functional networks and brain connectivity

12:40 – 13:00   SCHMIDT

Graph Contrastive Learning for Connectome Classification

PA12 – Room 8

12:00 – 12:20   PERUSQUÍA

Dinámica Poblacional del Gato Doméstico en Entornos Urbanos desde el enfoque de Sistemas Complejos

12:20 – 12:40   COMBARIZA

Decreasing the spectral radius by removal of a node

12:40 – 13:00   BELLO

Graph based models for anomaly detection in multivariate time series

13:00 – 14:30   **CLOSING COCKTAIL**