| Schedule (CST, UTC-5:00) | 8:00:00 AM | 8:30:00 AM | 9:00:00 AM | 9:30:00 AM | 10:00:00 AM | 10:30:00 AM | 11:00:00 AM | 11:30:00 AM | | 8:00:00 PM | 8:30:00 PM | 9:00:00 PM | 9:30:00 PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **20June Monday** | Matteo Marsili | | Denis Boyer | Dalia Hernández | *Course by Gorin* | | *Course by Markus* | | . | Hirdesh Pharasi | | Parisa Majari | José Luis Parra |
| **21June Tuesday** | M. S. Santhanam | | Anirban Chakraborti | | *Course by Gorin* | | *Course by Markus* | | . | Omer Tamuz | | Harish Puppala | Vishwas Kukreti |
| **22June Wednesday** | Arturo Álvarez | Hans Baltazar | Sunil Kumar | | | | | | . | Luis Ángel Contreras | Mijaíl Martínez | Luciano Pomatto | |
| **23June Thursday** | Gourab Ghoshal | | Suchetana Sadhukhan | Daniel Vargas | Francisco Morales | | | | . | Markus Müller | | Thomas H. Seligman | Zeidy Muñoz-Torres |
| **24June Friday** | Areejit Samal | | Oswaldo Gómez | | Santosh Kumar | | | | . | No talks on Friday afternoon | | | |

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| ***Notes:** | * Thomas Gorin and Markus Müller are continuing their courses during the conference week. |
| | * Friday we are finishing at 11a.m. |
| | * Mexico: UTC-5:00; India: UTC+5:30 |

# Indo-Mexican Workshop: Multivariate Analysis & Machine Learning in Econophysics, Brain Activity, Sociophysics, and more.

**Note** The official schedule of the event is expressed in Mexico City's local time (UTC-5:00).

## 2nd week: Symposium

- Monday, June 20th
  - 7:45 h - *Opening remarks*
  - 8:00 h - **Matteo Marsili**: *Featureless inference.*
  - 9:00 h - **Denis Pierre Boyer**: *Learning abilities of non-Markovian random walks.*
  - 9:30 h - **Dalia Jazmín Hernández Gallegos**: *Critical behavior in domain size dependent global spin exchange dynamics.*

    *–**(Break**[1]**)–*
  - 20:00 h - **Hirdesh K. Pharasi**: *Spectral and clustering analysis of the financial markets.*
  - 21:00 h - **Parisa Majari**: *Coarse-graining of correlation matrices applied to financial markets.*
  - 21:30 h - **José Luis Parra Aldrete**: *Random Hopfield networks from the point of view of Random Matrix Theory and k-means Clustering.*
- Tuesday, June 21st
  - 8:00 h - **M. S. Santhanam**: *Infectious diseases hazard map for India based on mobility networks.*
  - 9:00 h - **Anirban Chakraborti**: *Applications of Network Theory: Biology to Finance.*

    *–**(Break)**–*
  - 20:00 h - **Omer Tamuz**: *Monotone Additive Statistics.*
  - 21:00 h - **Harish Puppala**: *Susceptibility of renewable energy production to climate change.*
  - 21:30 h - **Vishwas Kukreti**: *The effect of reddit sentiment on bitcoin returns.*
- Wednesday, June 22nd
  - 8:00 h - **Arturo Álvarez Cruz**: *Algorithms and applications of Reinforcement Learning.*
  - 8:30 h - **Hans Christian Baltazar Flores**: *Relaxation in a disordered system of spins from classical stochastic dynamics to quantum dynamics.*

[1] We will be continuing the courses on normal distribution and non-linear time series analysis, started last week.

- 9:00 h - **Sunil Kumar**: *Temporal network analysis of critical events in global financial market indices.*

  *–**(Break)**–*

- 20:00 h - **Luis Ángel Contreras Toledo**: *Towards active perception in service robots.*
- 20:30 h - **Manuel Mijaíl Martínez Ramos**: *On the community structure induced by financial time series.*
- 21:00 h - **Luciano Pomatto**: *Matching markets.*

- Thursday, June 23rd

  - 8:00 h - **Gourab Ghoshal**: *Information transfer in co-location networks: inferring individual movement patterns from their acquaintances.*
  - 9:00 h - **Suchetana Sadhukhan**: *Machine learning assisted time series analysis of air pollutants.*
  - 9:30 h - **Daniel Vargas Méndez**: *Self-Organized criticality in cellular automata: Interdependence between mobile agents and stationary states in Conway's Game of Life.*
  - 10:00 h - **José Francisco Morales Hernández**: *Data science in industry: expectation vs reality.*

    *–**(Break)**–*

  - 20:00 h - **Markus Franziskus Müller Bender**: *On Fourier Phases and their relevance for non-linear Time Series Analysis.*
  - 21:00 h - **Thomas Henry Seligman Schurch**: *Correlations in fMRI brain data.*
  - 21:30 h - **Zeidy Muñoz-Torres**: *Phases of spontaneous electrical brain activity.*

- Friday, June 24th

  - 8:00 h - **Areejit Samal**: *Forman-Ricci curvature: A geometry-inspired measure with wide applications in network science.*
  - 9:00 h - **Jorge Oswaldo Gómez Muñoz**: *Lessons learned from production AI at scale.*
  - 10:00 h - **Santosh Kumar**: *Statistics of squared Bures distance between random quantum states.*

    *–**(End of workshop's 2nd week)**–*