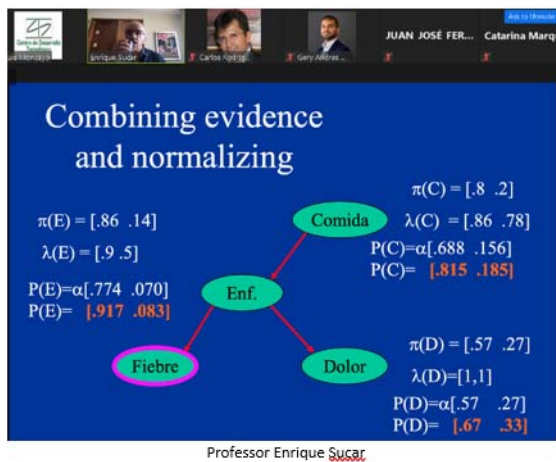


3rd IASC-LARS School on Computational Statistics and Data Science a great success!

The **Third LARS-IASC School on Computational Statistics and Data Science** was virtually held from April 17 to April 18, 2021. This was a satellite event of LACSC 2021 jointly organized by the Instituto Tecnológico Autónomo de México (ITAM), the Latin American Regional Section of the IASC, the International Association for Statistical Computing (IASC), and the International Statistical Institute (ISI).

This year the school theme was **Stochastic Simulation and Reinforcement Learning**. The two-day program included topics such as graphical models, Bayesian classifiers and networks, simulation output analysis, Markov chain Monte Carlo, and reinforcement learning. The school provided a global perspective on the ongoing research in the area and interesting applications in astrophysics. The course was attended by 25 students from Benin, Chile, Costa Rica, Estonia, Italy, Mexico, and Perú.



The school instructors were renowned professors in the discipline. Professor Dr. Luis Enrique Sucar received the BSc degree in Electronics and Communications Engineering from Tec de Monterrey (1980), the MSc degree in Electrical Engineering from Stanford University (1982), and the PhD degree in Computing from Imperial College (1992). He is a senior research in the

National Institute for Astrophysics, Optics and Electronics, México. He has been an invited professor with the University of British Columbia, Canada, Imperial College, London, INRIA, France, and CREATE-NET, Italy. His main research interests include graphical models and probabilistic reasoning, and their applications in computer vision, robotics, energy, and biomedicine. He has more than 300 publications and has directed 21 Ph.D. thesis.

Professor Dr. David Muñoz received a BSc degree in Statistics from Universidad Nacional Agraria, La Molina (Perú), an MSc degree in Mathematics from the Pontificia Universidad Católica del Perú, and a MSc and PhD degree in Operations Research from Stanford University. He is Professor and Head of the Department of Industrial & Operations Engineering at the Instituto Tecnológico Autónomo de México (ITAM).

Visiting posts include Stanford University, Nanyang Technological University of Singapore, the University of Valencia, and the University of Texas at Austin. His main research interests include probabilistic and statistical aspects of simulation, applications of simulation, and design and analysis of business processes. He has more than 100 publications. His papers have appeared in Operations Research, Management Science, Journal of Computational and Applied Mathematics, Business Process Management Journal, Operations Research Letters, International Transactions in Operational Research, and Interfaces, among others. He is co-author of the textbooks *Introducción a la Ingeniería* (Cengage Learning), and *Simio y Simulación* (Simio LLC), and author of *Administración de Operaciones, Enfoque de Administración de Procesos de Negocios* (Cengage Learning).

LINEAR CONGRUENTIAL GENERATORS (LCG)

- LCG are the most used RNG.
- LCG produce a sequence of integers Z_1, Z_2, Z_3, \dots from:

$$Z_{i+1} = (a Z_i + c) \pmod{m}$$
- “mod m ” means taking the *rest* after dividing by m
- Z_i 's are between 0 and $m - 1$, so that the i -th “random number” is $U_i = Z_i / m$
- Constants a , c , and m are chosen *carefully*.
- m prime is a good choice.

David Fernando Muñoz-Negrón

Professor David F. Muñoz

Reinforcement Learning

LACSO-IASC School

Eduardo Morales

Professor Eduardo Morales

Professor Dr. Eduardo Morales received the BSc degree in Physical Engineering from Universidad Autónoma Metropolitana Azcapotzalco (1984), a MSc degree in Artificial Intelligence from The University of Edinburgh (1985), and a PhD degree in Computing from The Alan Turing Institute – University of Strathclyde (1992). He is a senior research in the National Institute for

Astrophysics, Optics and Electronics, México. He has been an invited researcher at the Electric Power Research Institute, USA, and the Instituto de

Investigaciones Eléctricas, México, an invited professor at the University of New South Wales, Australia, and the Tec de Monterrey, Mexico. His main research interests include machine learning, artificial intelligence, relational reinforcement learning and robotics. He has more than 100 publications and has directed 11 Ph.D. thesis.

IASC-LARS School 2021 Attendees

