12th International Workshop on Numerical and Evolutionary Optimization (NEO 2025): First Call for Participation

Dear colleague,

This is the first call for participation and the call for special sessions for the 12th International Workshop on Numerical and Evolutionary Optimization (NEO 2025).

The NEO 2025 will be held in Tijuana, Baja California, from September 23 - 26, 2025.

Please find below further information on the event as well as on the call for special sessions. We are looking forward to welcome you at the NEO 2025 in September.

Marcela Quiroz
Daniel Hernandez
Leonardo Trujillo
Oliver Schuetze
(NEO 2025 Organization Team)

Scope and Topics

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The goal of the Numerical and Evolutionary Optimization (NEO) workshop series is to bring together people from all optimization fields to discuss, compare and merge their complimentary perspectives. NEO encourages the development of fast and reliable hybrid methods that maximize the strengths and minimize the weaknesses of each underlying paradigm, while also being applicable to a broader class of problems. Moreover, NEO fosters the understanding and adequate treatment of real-world problems, particularly in emerging fields that affect us.

Topics of interest include (but are not limited to):

A) Search and Optimization:

- Single- and multi-objective optimization
- Advances in evolutionary algorithms and genetic programming
- Hybrid and memetic algorithms
- Set oriented numerics
- Stochastic optimization
- Robust optimization

B) Real World Problems:

- Health systems
- Computer vision and pattern recognition
- Energy conservation and prediction
- Modeling and control of real-world systems
- Smart cities
- Machine Learning in Robotics

Hybrid Event

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The NEO 2025 will be held as a hybrid event, participants have the possibility to attend in person or virtually.

Invited Speakers

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- Jian-Qiao Sun, University of California, Merced, USA
- Ryan J. Urbanowicz, Cedars-Sinai Medical Center, Los Angeles, USA

Publication

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The NEO 2025 will accept abstracts that will be published in the book of abstracts of the event. Further, there is the possibility to publish substantially extended works in a special issue in Mathematical and Computational Applications (JCR, Q2).

Special Sessions (tbc)

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If you have a proposal for a special session at the NEO 2025, please contact Daniel Hernández (daniel.hernandezm@tectijuana.edu.mx) not later than April 15, 2025.

Confirmed sessions:

- Women at NEO
    - Chair: Marcela Quiroz
- Evolutionary Multi-objective Optimization
    - Chair: Oliver Schuetze
- Discrete Optimization
    - Chair: Marcela Quiroz
- Applications of Machine Learning
    - Chair: Daniel Hernandez
- Genetic Programming
    - Chair: Leonardo Trujillo

Important Dates

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September 03, 2024: Research Experience Day

September 03 - 06, 2024: NEO 2024

Further Information

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Details and up-to-date information can be found on the webpage of the event:

https://neo-workshop.com

In case of any questions or concerns, please contact Daniel Hernández

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