



People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University of Oum El Bouaghi
Laboratory of Dynamical Systems and Control

National Conference
Nonlinear Dynamical Systems and Their Applications
in Science and Technology

Conference date: October 14, 2026

Venue: Lecture Hall - Faculty of Exact Sciences and Natural and Life Sciences

Administrative and Scientific Committee

Honorary President: Prof. Choug Fawzi.

General Supervisor: Prof. Taki Eddine Oussaeif, Dean of the Faculty of Exact Sciences and Natural and Life Sciences.

Director of the Laboratory: Prof. Mohamed SAADI.

Conference Chair: Dr. Abdellah MENASRI.

Chair of the Scientific Committee: Prof. Merad Ahcene (University of Oum El Bouaghi).

Contact Information

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Problem Statement

Nonlinear dynamical systems are among the fundamental pillars for understanding the behavior of complex systems across various scientific and technological fields. They provide a mathematical framework for analyzing the evolution of phenomena over time, whether in nature, engineering, economics, or artificial intelligence.

Despite significant progress in this field, scientific challenges remain concerning the description of nonlinear systems, the analysis of their stability and bifurcations, and the development of accurate numerical methods for their simulation, in addition to their application in diverse practical contexts.

The main issue that this conference aims to address is:

How can the concepts and tools of dynamical systems be employed to analyze complex phenomena, improve modeling and control, and develop innovative applications in science and technology?

Objectives

- Strengthening scientific interaction between researchers and doctoral students in the field of dynamical systems and their applications.
- Discussing the latest theoretical and analytical developments in the study of nonlinear systems.
- Developing mathematical and numerical tools for studying stability, bifurcation, and control in dynamical systems.
- Highlighting the practical applications of dynamical systems in cryptography, signal processing, biology, physics, and engineering.
- Opening new research perspectives in the study of fractional and complex systems.
- Encouraging collaborative projects between national laboratories and linking them with global research trends.



Conference Topics

- Mathematical and qualitative analysis of nonlinear dynamical systems.
- Study of stability, bifurcations, and control in dynamical systems.
- Mathematical and numerical modeling of physical, biological, and engineering systems.
- Fractional systems and their applications in describing complex phenomena.
- Chaos and its control, with applications in cryptography and information security.
- Dynamical systems in artificial intelligence and neural networks.
- Numerical algorithms and computational simulation of dynamical systems.
- Industrial and technological applications of nonlinear systems.
- Dynamical systems in economics, environment, and data science.
- Interaction between complex systems and chaos.

Important Dates

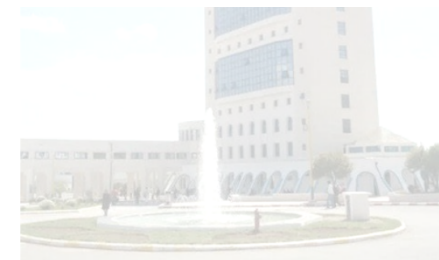
Deadline for abstract submission: September 20, 2026

Notification of acceptance: October 01, 2026

Conference date: October 14, 2026

Submission Guidelines

- Contributions must be original.
- Use of the abstract template provided by the organizing committee is mandatory.
- Full abstracts must be submitted within the specified deadline.



Scientific Committee Members and Affiliations

- Prof. Aiyadi Abdelhamid (University of Oum El Bouaghi)
- Prof. Hamri Nacerdine (University of Mila)
- Prof. Taieb Hamaizia (University of Oum El Bouaghi)
- Prof. Ouana Adel (University of Oum El Bouaghi)
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Organizing Committee

- Chair: Prof. Rezzoug Imad
- Dr. Guerarra Siham
- Dr. Rouar Salim
- Dr. Seddik Makhoul
- Dr. Nabil Alaiche
- Dr. Boussafsaf Issam
- Dr. Djeddi Kamel

Invited Speakers

- Prof. Kachkar Nacerdine
- Prof. Ounnas Adel
- Prof. Hamri Nasr Eddine
- Prof. Mohamed Salah Abdelwahab
- Prof. Zeraoulia ElHadj
- Prof. Masbahi Salim

Participation Fees

Professors: 4000 DZD Students: 2000 DZD

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