

# Special Issue

## Recent Advances in Nonlinear Control Theory and System Dynamics

### Message from the Guest Editors

Due to their complex dynamic characteristics, nonlinear systems often exhibit multiple stabilities, chaotic behaviors, and complex dynamic responses; therefore, research on nonlinear control theory and system dynamics becomes particularly important. In recent years, with the improvement of computing power and the continuous development of control theory, significant progress has been made in the research on nonlinear control methods; in particular, many breakthroughs have been achieved in aspects such as robust control, optimal control, adaptive control, and sliding mode control. Nevertheless, the application of nonlinear control theory and system dynamics in practical engineering still faces many challenges, such as system uncertainty, external interference, and model mismatch. Therefore, further promoting research on nonlinear control theory and system dynamics remains the key to achieving efficient, stable, and reliable control systems. We welcome you to submit and showcase cutting-edge research achievements in nonlinear system modeling, stability analysis, control strategy design, and dynamic behavior prediction.

### Guest Editors

Dr. Zhe Zhang

1. School of Electrical Engineering, Guangxi University, Nanning, China
2. College of Electrical and Information Engineering, Hunan University, Changsha, China

Dr. Xiaokang Liu

School of Artificial Intelligence and Automation, Huazhong University of Science and Technology, Wuhan 430074, China

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[mathematics@mdpi.com](mailto:mathematics@mdpi.com)

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### Editor-in-Chief

Prof. Dr. Francisco Chiclana  
School of Computer Science and Informatics, De Montfort University,  
The Gateway, Leicester LE1 9BH, UK

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