

Special Issue

Artificial Intelligence and Optimization in Aircraft Design and Unmanned Aerial Vehicles

Message from the Guest Editor

Urban air mobility (UAM) opens up the possibility of a new era for air travel. UAM has emerged as a safe and efficient air transportation system where everything, from small package delivery drones to passenger aircraft, is operating above populated areas. However, along with these promising benefits, challenges also arise. In particular, we need to create complex coupled system-level designs, realize fast interactive decision making, and maintain a higher system reliability and robustness by incentivizing cutting-edge research. One of the main forces is artificial intelligence (AI), which especially enables various design optimization architectures, realizes real-time decision making via surrogate modeling, and considers uncertainty within design optimization. In line with the goal of the *Mathematics* journal, the aim of this Special Issue is to provide a platform where researchers present their original research contributions. In particular, this Special Issue focuses on AI and design optimization in UAM and expects to inspire novel research products with large-scale practical applications.

Guest Editor

Dr. Xiaosong Du

Department of Mechanical and Aerospace Engineering, Missouri University of Science and Technology, 400 W 13th Street, Rolla, MO 65409, USA

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Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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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