

# Special Issue

## Nonlinear Problems of Aircraft Flight Dynamics

### Message from the Guest Editors

We invite submissions used to study nonlinear problems in aircraft flight dynamics. Topics of interest include, but are not limited to, the following:

- Application of methods of the theory of nonlinear dynamical systems to predict flight performance and maneuverability over the entire range of flight modes, as well as to determine the critical boundaries of the flight envelope.
- Improving the accuracy of aerodynamic modelling over an extended range of flight regimes through the coordinated use of computational fluid dynamics (CFD) simulations in combination with experimental data from static and dynamic wind tunnel tests.
- Development of automated command and stability augmentation systems (CSASs) to protect flight envelopes, recover from critical flight regimes, and prevent pilot-induced oscillations (PIOs).
- Experimental investigation of nonlinear problems using virtual flight methods in a wind tunnel with controlled scale models of aircraft.

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### Guest Editors

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### Deadline for manuscript submissions

30 September 2026



## Aerospace

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