Special Issue

Open and Closed-Loop Control Systems for Active Flow Control

Message from the Guest Editor

Developing adaptive control strategies for synthetic jet actuators (SJAs) that dynamically respond to changing flow conditions is necessary in order to achieve broader applicability. Understanding the flow interaction between the SJAs and the cross-flow is crucial, as this underpins the possibilities for optimizing performance. These adaptive systems can optimize performance across jets, airfoils, and turbomachinery by integrating advanced sensing, machine learning, and real-time control. Key topics for discussion in this Special Issue include leveraging adaptive control frameworks, exploring comprehensive flow data and computer vision for real-time analysis, and ensuring robust, reliable SJA systems.

Guest Editor

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