

# External and Turbomachinery Flow Control Working Group

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## ➤ Broad Flow Control Issues

- Understanding flow physics
- Specific control objective(s)
- Actuation
- Sensors
- Integrated active flow control system
- Development of design tools (CFD, reduced order models, controller design, understanding and utilizing instabilities and other mechanisms, e.g., streamwise vorticity)

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- Flow control grand challenge
  - Jet noise control
  - Fluidic aerodynamic-aeroelastic control (flow-structure interaction)
  - Three-dimensional turbulent bluff body flow control