

## Model-Based Control of Shear Flows Using Low-Dimensional Galerkin and Vortex Models

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The present study proposes a model-based flow control strategy using low-dimensional coherent-structure representations. This strategy is applied to the suppression of a von Kármán vortex street and the mixing enhancement of a wall-bounded shear-layer. Here, low-dimensional Galerkin and vortex models are used as a 'plant' for controller and observer design. The control approach is validated against direct numerical simulations.

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