

Approximate Deconvolution Reduced Order Modeling

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Abstract This talk proposes an approximate deconvolution reduced order model (AD-ROM). The new AD-ROM is developed within the large eddy simulation reduced order modeling (LES-ROM) framework, in which a differential filter is used to define the large ROM structures and the AD approach is used to solve the ROM closure problem. The AD-ROM is tested in the numerical simulation of a three-dimensional flow past a circular cylinder at a Reynolds number $Re=1000$.

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