Summer School on Reduced Order Methods in Computational Fluid Dynamics



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Hybrid ROMs for problems in computational fluid dynamics

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In this work, we present a hybrid approach for the reduction of fluid dynamics flows. The approach proposed is based on mixing the traditional projection Galerkin methods with data-driven techniques. The goal is to reduce complex problems in CFD with special focus on turbulent flows. The data-driven techniques are utilized in approximating certain fluid dynamics variables in the reduced dynamical system which resulted from a Galerkin projection.

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