



CSC Seminar

SPEAKER

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TITLE

Connections between image registration and model-order reduction for transport dominated problems

ABSTRACT

Model-order reduction (MOR) for transport dominated problems constructs non-linear approximation spaces by composing functions. We discuss how this technique is related to image registration that is an image analysis tool to develop correspondence between images. The connection offers a new paradigm to reduce parametrized problems involving compressible fluid flows, moving boundaries, etc. We present a few image registration techniques that appeal to the MOR framework and validate their adequacy via numerical experiments.

Tuesday, March 30, 2021 at 2 pm

BBB