

# Tensor methods for high-dimensional problems and model reduction

*vendredi 1 avril 2022 10:20 (50 minutes)*

We present several contributions related to Tensor methods for high-dimensional problems and discuss how they are inherently related to model reduction.

In particular, we will show several ways to introduce a principle of adaptivity, making tensor representations more suitable to parsimoniously represent certain solutions sets. In the last part of the talk, a contribution on a possible way to exploit a tensor representation in state estimation is presented. In this, we show that variational and sequential state estimation methods can be derived after casting state estimation as an optimal recovery problem, using tensors to have a space-time representation of the solutions set.

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