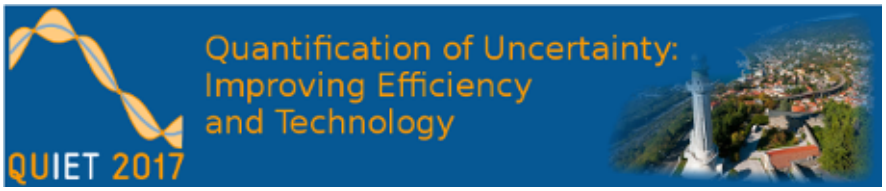

Stabilization of EIM and PBDW Methods with Noisy Observations

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Empirical Interpolation Methods (EIM) and their Generalizations (GEIM) allow to provide, in the frame of model order reduction methods, rapid, stable and accurate reconstruction of function that we have been able to learn the behavior in an off line stage. It is complemented with the parametrized-background data-weak (PBDW) formulation to possibly correct a bias between the learning process, synthesized in a reduce basis and the true behavior.

In this talk we shall present an overview of the qualities of these approach when noisy data are available and how to best use the knowledge of the reduced space in order to diminish the negative effect of the noisy data.

This presentation will synthesize the collaborations through many contributions.