CWI-Inria
INTERNATIONAL LAB

Workshop 2017
September 19-20, 2017, Amsterdam

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Title: « Novel algorithm for computing multiple failure regions of low probability »

Abstract:
The first part of the talk will be devoted to present the activities under way in the context of the COMMUNES Team, around Uncertainty Quantification techniques and their application on computational fluid-dynamics problems. Then, the second part will be focused on a novel algorithm for computing multiple failure regions of low probability. In particular, we will present a novel algorithm permitting to both building an accurate metamodel and to provide a statistically consistent error. Several numerical examples will be carried out, showing the better performances of the proposed method with respect to the state-of-the-art methods in terms of accuracy and computational cost.