



MUMS Program Opening Workshop
August 20-24, 2018

SPEAKER TITLES/ABSTRACTS

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“Emulators for models and Complexity Reduction”

We present an overview of mathematical tools for building model emulators. We will primarily discuss forward emulation, where one seeks to predict the output of a model given an input. We will emphasize methods that boast stability, accuracy, and computational efficiency, and will in particular discuss emulators built from non-adapted polynomials, and from adapted function spaces. The talk will highlight some notable advances made in the field of building emulators, and will identify frontiers where mathematical or computational advances are needed.