CRiSM Seminar

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Leveraging concepts from stochastic simulation and machine learning for efficient Bayesian inference

With the advent of a host of new experimental technologies, the last ten years has seen an explosion in the amount and types of quantitative data now being generated. In tandem, the mechanistic, mathematical models developed to interrogate these data have also grown in size and complexity. These detailed models have the potential to provide vital new insights into governing mechanisms. However, to achieve this goal requires meeting significant mathematical challenges in calibrating them to experimental data. In this talk, I will outline some of these challenges, and recent steps we have taken in addressing them.