

We revisit the problem of determining the sample size for a Gaussian process emulator and provide a data analytic tool for exact sample size calculations that goes beyond the $n=10d$ rule of thumb and is based on an IMSPE-related criterion. This allows us to tie sample size and prediction accuracy to the anticipated roughness of the simulated data, and to propose an experimental process for computer experiments, with extension to a robust scheme.

Statistica Sinica