Code description: A dynamic modelling strategy for Bayesian computer model emulation

1 Example data and code directory

The example data is provided under the directory "mydata":

- "design1.dat": this file contains information of the design of the training data.

- "y1.dat": this file contains the 60 training runs, with the input given in "design1.dat", and the data of each run is a time series over $T = 1,827$ time points.

- "design2.dat": this file contains information of the design of the validation data.

- "y2.dat": this file contains the 60 validation runs.

The Matlab code is provided under the directory "code".

2 Using the code

- Specify data, parameters and priors in file "Setup.m".

- Run the code using "main.m".

- "CMfit.m" is the code to fit DLM-GASP.

- The code automatically runs 200 Metropolis-Hastings steps of drawing Gaussian correlation parameters. The user can change this in file "CMfit.m".

- "CMpred.m" is the code to predict at untried inputs. It calls the function "Pred.m" for each input.

- "CMsave.m" specifies the name of the output file. Currently, the output is saved as an ".mat" object.

- "CMplot.m" contains commands that generate the plots in this paper.