Parallel processing status

Resource name	Status
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951708	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951709	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951710	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951711	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951712	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951713	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951714	FINISHED
https://bisque.ece.ucsb.edu/data_service/00-LxeScocVH49rVbT8ZsYHNo/mex/11951715	FINISHED

4. Results:

The module ran in 8 minutes 40 seconds

Select a thumbnail to see individual results:

Showing 1-7 of total 100

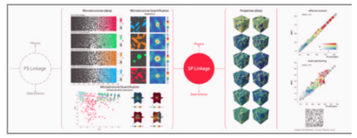
equi_101_20180809T224711_11748195.h5
equi_101_20180809T224711_11748196.h5
equi_101_20180809T224711_11748192.h5
equi_101_20180809T224711_11748194.h5
equi_101_20180809T224711_11748199.h5
equi_101_20180809T224712_11748191.h5
equi_101_20180809T224711_11748197.h5

Predicted

Export

Name	Value
Strength	1.13425751273
sbar_up	1.13006147437
sbar_low	1.02670700537
Volume Fraction	0.967484631408, 0.0325153685922
table:equi_101_20180809T224711_11748194.h5 - file://amil/ModuleExecutions/Dream3D/equi_101	

About:



This module implements a surrogate model that predicts effective yield strength of a composite given its 3-D microstructure.

The model is developed for composites with strength contrast of 5: strength of hard phase s2/s1 = 5. The model works best on periodic 3-D microstructures.

Calibration of the model is done by finite element simulation data by multivariate polynomial regression between principal component scores of 2-point statistics (representing microstructure) and effective yield strength (property). See more details in the paper, Data-driven reduced order models for effective yield strength and partitioning of strain in multiphase materials.

Input

HDF5 file containing spatial information of phases.

Output

Predicted effective yield strength.