We invite you to participate in the Damage Mechanics Challenge Workshop. The purpose of this exercise is to

1. compare computational approaches on damage evolution for predicting fracture behavior of 3D printed model rock,
2. identify the information provided by the different simulation approaches that gives insight into the prediction and interpretation of failure in rock;
3. identify model parameters that are currently not measured or cannot be measured in the laboratory; and
4. determine whether there are other experimental measurements that are needed or better methods of performing measurements to monitor damage evolution.

This challenge exercise is used to determine the state of the art and future directions to improve the community's ability to simulate crack formation and evolution in natural and engineered brittle-ductile materials. More information on how to participate in the challenge can be found at

https://purr.purdue.edu/groups/damagemechanicschallenge

Note: The results from the challenge will be published with participants as co-authors and their results in the publication.

Important dates:
12/01/2021– Benchmark dataset and challenge information posted on website listed above.
1/15/2022 – Online Forum with challenge hosts to address questions
4/15/2022 – Abstract submission for workshop
5/15/2022 – Submission of results by participants
6/25/2022 – Workshop where challenge data and participants solutions are presented

Abstracts of 250-500 words, in English, can be submitted to your challenge account. Abstracts should include a brief description of the numerical method, results and other comments on your results.

Workshop Fee: $75 and students are free.

Organizers:
Laura J. Pyrak-Nolte, Purdue University
Hongkyu Yoon, Sandia National Laboratories
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