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Leges Motus*



Seminar über Fragen der Mechanik

zu folgendem Vortrag wird herzlich eingeladen

Mittwoch, **31.05.2017, 14:00 Uhr**, Egerlandstr. 5, Raum 0.044

A parallel solution approach for crack propagation using adaptive mesh refinement

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We present an algorithm based on the active set strategy to simulate crack propagation using a quasi-static fracture model. The crack is discretized using a phase-field approach, which allows merging and joining of cracks. The non-linear system is discretized using the Finite Element method and solved in a monolithic fashion. We include a new strategy for adaptive mesh refinement. The whole scheme is parallelized and scales to a large number of cores.

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