Series- and conference contributions

[1] P. Diehl and M. A. Schweitzer. Efficient neighbor search for particle methods on GPUs. In M. Griebel and M. A. Schweitzer, editors, *Meshfree Methods for Partial Differential Equations VII*, volume 100 of *Lecture Notes in Computational Science and Engineering*. Springer, 2014. Also available as INS Preprint No. 1405.

[2] P. Diehl and M. A. Schweitzer. Simulation of wave propagation and impact damage in brittle materials using peridynamics. In Miriam Mehl, Manfred Bischoff, and Michael Schäfer, editors, *Recent Trends in Computational Engineering – CE2014*, Lecture Notes in Computational Science and Engeneering. Springer, 2015.

[3] F. Franzelin, P. Diehl, and D. Pflüger. Non-intrusive uncertainty quantification with sparse grids for multivariate peridynamic simulations. In M. Griebel and M. A. Schweitzer, editors, *Meshfree Methods for Partial Differential Equations VII*, volume 100 of *Lecture Notes in Computational Science and Engineering*. Springer, 2014. Also available as INS Preprint No. 1408.

Invited talks and Presentations

[4] Patrick Diehl. Coupling CPU and GPU to simulate efficient dynamic cracks and fractures in solids. 12th U.S. National Congress on Computational Mechanics (USNCCM12), 21.07-25.07 2013.

[5] Patrick Diehl. Efficient k-nearest neighbor search on the GPU. Seventh International Workshop Meshfree Methods for Partial Differential Equations, 09.09-11.09 2013.

[6] Patrick Diehl. Simulation of high-speed velocity impact on ceramic materials using the Peridynamic technique. III International Conference on Particle-Based Methods. Fundamentals and Applications. Particles 2013, 18.09-20.09 2013.

[7] Patrick Diehl. Efficient particle-based simulation of dynamic cracks and fractures in ceramic material. GPU Technology Conference 2014, 24.03-27.03 2014.

[8] Patrick Diehl. Sensivity study for wave propagation and impact damage in brittle materials using peridynamics. ASME International mechanical Engineering Congress and Exposition, 14.11-20.11 2014.

[9] Patrick Diehl. Simulation of wave propagation and impact damage in brittle materials using the peridynamics technique. 11th. World Congress on Computational Mechanics (WCCM XI), 20.07-25.07 2014.

[10] Patrick Diehl. Simulation of wave propagation and impact damage in brittle materials using the peridynamics technique. 3rd Workshop on Computational Engineering, 06.10-10.10 2014.

[11] Patrick Diehl. A benchmark study for mode I crack opening for brittle materials. 13th US National Congress on Computational Mechanics (USNCCM), 26.07-30.07 2015.

Posters

[12] Patrick Diehl. Applying Tools and Techniques from Software Engineering in Computational Mechanics. 12th U.S. National Congress on Computational Mechanics (USNCCM12), 21.07-25.07 2013.

[13] Patrick Diehl. Numerical verification of the bond-based peridynamic softening model against classical theory. Nonlocal Models in Mathematics, Compution, Science, and Engineering, 26.11-28.11 2015.

Theses

[14] Patrick Diehl. Implementierung eines Peridynamik-Verfahrens auf GPU. Diplomarbeit, Institute of Parallel and Distributed Systems, University of Stuttgart, 2012.