## **Journal Papers**

[1] M. Bußler, P. Diehl, D. Pflüger, S. Frey, F. Sadlo, T. Ertl, and M. A. Schweitzer, *Visualization of Fracture Progression in Peridynamics*, Computer & Graphics, 67 (2017), pp. 45–57.

- [2] P. DIEHL, F. FRANZELIN, D. PFLÜGER, AND G. C. GANZENMÜLLER, Bond-based peridynamics: a quantitative study of Mode I crack opening, International Journal of Fracture, 2 (2016), pp. 157–170.
- [3] P. DIEHL, I. TABIAI, F. W. BAUMANN, D. THERRIAULT, AND M. LEVESQUE, Long term availability of raw experimental data in experimental fracture mechanics, Engineering Fracture Mechanics, 197 (2018), pp. 21–26.

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- [3] —, Simulation of wave propagation and impact damage in brittle materials using peridynamics, in Recent Trends in Computational Engineering CE2014, M. Mehl, M. Bischoff, and M. Schäfer, eds., vol. 105 of Lecture Notes in Computational Science and Engineering, Springer, 2015, pp. 251–265.
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- [5] T. HELLER, P. DIEHL, Z. BYERLY, J. BIDDISCOMBE, AND H. KAISER, HPX An open source C++ Standard Library for Parallelism and Concurrency, in Proceedings of OpenSuCo 2017, Denver, Colorado USA, November 2017 (OpenSuCo 17), 2017, p. 5.
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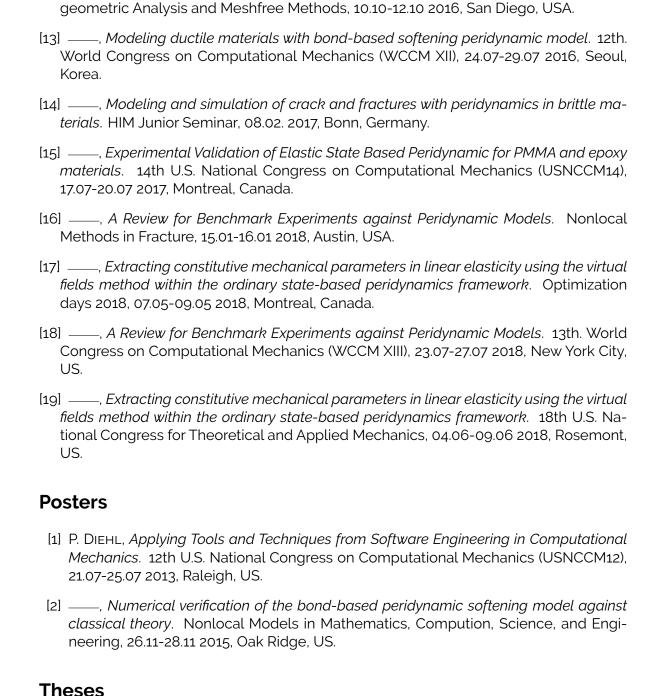
## **Technical reports**

[1] P. DIEHL, R. LIPTON, AND M. A. SCHWEITZER, Numerical verification of a bond-based soft-ening peridynamic model for small displacements: Deducing material parameters from classical linear theory, tech. rep., Institut für Numerische Simulation, 2016.

### **Invited talks and Presentations**

- [1] P. DIEHL, Efficient k-nearest neighbor search on the GPU. Seventh International Workshop Meshfree Methods for Partial Differential Equations, 09.09-11.09 2013, Bonn, Germany.
- [2] —, 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, Reilagh, US.
- [3] —, 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, Stuttgart, Germany.
- [4] \_\_\_\_\_, 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, Barcelona, Spain.
- [5] ——, 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, Montreal, Canada.
- [6] \_\_\_\_\_, Efficient particle-based simulation of dynamic cracks and fractures in ceramic material. GPU Technology Conference 2014, 24.03-27.03 2014, San Francisco, US.
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- [8] —, A sensitivity study for critical traction in quasi-static peridynamics simulations. 1st. PAN-American Congress on Computational Mechanics, 27.04-30.04 2015, Buenos Aires, Argentina.
- [9] —, A benchmark study for mode I crack opening for brittle materials. 13th US National Congress on Computational Mechanics (USNCCM), 26.07-30.07 2015, San Diego, US.
- [10] ——, Energy equivalence for the horizon independent bond-based peridynamic soft-ening model according to classical theory. The Mathematics of Finite Elements and Applications 2016 (MAFELAP), 14.06-17.06 2016, London, UK.
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# Raw experimental data

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