

RECENT DEVELOPMENTS IN PERIDYNAMICS MODELING

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Peridynamics modeling has been effectively used to predict material failure and damage in many applications, and it was successfully compared against various experiments. However, some theoretical and numerical understanding of simulation results, e.g., crack nucleation, is still missing. The purpose of this symposium is twofold. First, current developments in theoretical efforts will be presented, one objective being to understand better the possible synergies between peridynamics and more classical approaches as well as the way they can be used concurrently or not. Second, advances in computational efforts in recent years will be discussed, and the observed challenges will be highlighted. By combining theoretical and applied presentations, this symposium aims to strengthen the synergy between researchers working on analytical and numerical methods and discuss current challenges and open questions in the field of peridynamics.