RECENT ADVANCES IN THE BRIDGING SCALE

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The desire to couple atomistic and continuum simulations has become a permanent fixture in the computational mechanics research community. One such approach, the bridging scale [1, 2], was recently developed to solve this problem. We will briefly review the merits of the bridging scale, then discuss the application of the method to fully nonlinear problems, i.e. those in which both the atomistic and continuum systems allow nonlinear forces.

References

[1] G.J. Wagner and W.K. Liu. Coupling of Atomistic and Continuum Simulations using a Bridging Scale Decomposition. Accepted for publication in *Journal of Computational Physi*cs 2003.
[2] H.S. Park and W.K. Liu. Introduction and Tutorial on Multiple Scale Analysis in Solids. Accepted for publication in *Computer Methods in Applied Mechanics and Engineer*ing 2003.