

ENRICHMENT OF FEM BY MD USING A BRIDGING SCALE ANALYSIS

Wing Kam Liu

Professor,
Department of Mechanical Engineering
Northwestern University, 2145 Sheridan Road, Evanston, Illinois, 60208
<http://www.tam.northwestern.edu/wkl/liu.html>, Email: w-liu@northwestern.edu

We will apply the Wagner and Liu (2003) bridging scale method to the computer simulation of nano mechanics and materials problems. The Wagner and Liu method, is based on the projection of the MD solutions onto the coarse scale shape functions for the coupling of molecular dynamics (MD) and continuum mechanics simulations, is first reviewed. This concurrent simulation method will be employed to study the mechanics of carbon nanotubes, gradient materials and gradient plasticity problems and Cyber steel.

References

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