

Brief Biographical Sketch

Professor Ellad Tadmor

Professor Ellad Tadmor joined the Department of Aerospace Engineering and Mechanics faculty at the University of Minnesota in 2006. He received his Ph.D. from Brown University in 1996 and his B.Sc. and M.Sc. from the Technion in Israel in 1991 and 1987, respectively.

Prof. Tadmor's research focuses on the development of theories and computational methods for predicting the behavior of materials directly from the interactions of the atoms making up the material. This leads to material models that are based on first principles rather than curve fitting. This area of research falls under the broad category of "multiscale modeling", where the term "multiscale" reflects the fact that the solution of the problem requires bridging multiple length and time scales. Tadmor applies the multiscale methods he develops to problems of scientific and technological interest, including failure of materials and the design of new materials and novel nanostructures.

Prof. Tadmor considers teaching to be as central to the academic experience as research. He spends a considerable amount of effort on the courses he teaches. He has received numerous awards for excellence in teaching during his career. Dr. Tadmor currently teaches a number of undergraduate and graduate-level courses related to mechanics and failure of materials and atomistic and multiscale modeling of materials.