Eitan Tadmor is well known for his contributions to the theory and computation of Partial Differential Equations with diverse applications to shock waves, kinetic transport, incompressible flows, image processing, and self-organized collective dynamics.

The signature of Professor Tadmor work is the interplay between analytical theories and computational algorithms for such equations. In particular, he made a series of fundamental contributions to the development of high-resolution methods for nonlinear conservation laws, including those associated with the notions of *central schemes*, *entropy stability*, *spectral viscosity methods*, *constraint transport*, *edge detection*, and more.
Tadmor has carried out influential work on the rigorous derivation of transport models and their relation to kinetic theories, and on critical thresholds phenomena in such models.
He introduced novel ideas of multi-scale descriptions of images, and in recent years, has led an ambitious interdisciplinary research program in modeling and analysis of collective dynamics with applications to flocking and opinion dynamics.