

Eitan Tadmor
University of Maryland

Emergent behavior in collective dynamics

A fascinating aspect in collective dynamics is self-organization: ants form colonies, birds flock, mobile networks coordinate a rendezvous and human crowds reach a consensus. We will overview recent results on the large-time, large-crowd collective behavior, driven by different “rules of engagement”. In particular, we address the question how short-range interactions lead, over time, to the emergence of long-range patterns.