SEMINAR - סמינר

The seminar will be given in English

Waves and Networks

Wave propagation in complex networks gives rise to unexpected phenomena and leads to counterintuitive results as a direct consequence of the topology of the complex interactions among their nodes.

Energy and information propagation in such networks have been proposed and used to investigate interconnections in social networks, brain studies, and in metamaterials.

This seminar describes development of waves that emerge through interconnections among a set of nodes located on a ring and introduces the concept of group velocity in such a complex network.

We also introduce an integro-differential equation with double convolution to describe various topologies and apply it to the classical problem of a fluid-loaded beam to demonstrate the peculiar results that can emerge in complex networks.