Linear transport problems in networks

Reiner Nagel, University of Tübingen, Germany

We study the linear Boltzmann equation in a network combining methods from graph theory and functional analysis/operator theory. Our main interest is in the qualitative behavior and it is shown that - under appropriate assumptions on the transport process and on the structure of the graph - there occurs asymptotic periodicity. The results are due to Marjeta Kramar Fijavž, Eszter Sikolya and others. More details and open problems will be discussed in the working group Dynamical Networks.