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The graph structure impact on a singular limit of the generalized network transport

In the talk we present the family of perturbed transport problems in which a domain consists of countable intervals coupled by transition conditions at the ends. Using the theory of convergence of sequences of semigroups, we present different convergence results in the case of velocities of transport that accelerates to infinity being balanced by certain conditions at the boundary. We compare the structure of graph in primal problems with the properties of a network of the limit solution.