

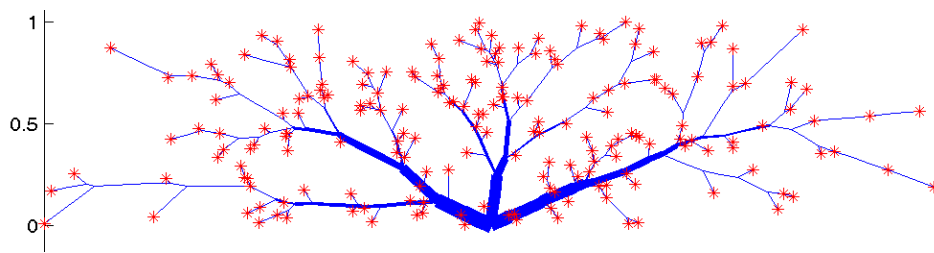
RAMIFIED OPTIMAL TRANSPORTATION AND ITS MULTIDISCIPLINARY APPLICATIONS

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The optimal transportation problem aims at finding a cost efficient transportation from sources to targets. In particular, ramified optimal transportation is used to model the transport economy of scale in group transportation observed widely in both nature (e.g. trees, river channel networks) and efficiently designed transport systems of branching structures (e.g. railway configurations and postage delivery networks). In this talk, we aim at surveying some applications of ramified optimal transportation in multidisciplinary areas such as mathematical biology (the dynamical formation of tree leaves, modelling of vascular structures in placentals), mathematical economics (optimal allocation problem, embedded exchange values in transport systems) and geometry (transport dimension of measures, modified diffusion-limited aggregation).



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