Tree forest metrics
for Schrödinger operators in networks

Silvia Gago

(joint work with Angeles Carmona and Andres Marcos Encinas)

Metrics in graphs provide measures of proximity between vertices. The classical short-path distances can be replaced for more general metrics, as the adjusted forest metric introduced by Chebotarev et al. in [2]. Other related distance is the one provided for the resistance distance of a network [3]. The objective of our work is to generalize the adjusted forest metric related to Laplacian operators to the adjusted forest metric related to Schrödinger operators, under the functional analysis framework. Furthermore, we show that it can be computed in terms of the effective resistances of the network.

References

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