

Alternative Symmetrizations of Hitting Times in Graphs

Timothy Chu
Carnegie Mellon University
tzchu@andrew.cmu.edu

Gary Miller
Carnegie Mellon University
glmiller@cs.cmu.edu

November 24, 2018

Abstract

To find distance between s and t : rather than have flow all come out of s , we allow flows to come out of a suite of vertices, where there's some penalty for having the flow come out of a vertex that isn't s . Likewise, flows can have sinks at vertices that aren't t , at some cost.

If we use effective resistance as our metric hereafter, this should be some kind of QCQP. Minimizing some electrical flow satisfying some demands, plus the penalty for those demands. I don't actually know if this is a QCQP but it feels like it could be.