Network connectivity: approximation algorithms via iterative rounding II

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ABSTRACT

This second talk focuses on the design of survivable networks under node or router failures. The model allows for specifying how many router failures should be tolerated before a pair of nodes are disconnected in the network. The previous talk describes an approximation result that works for the problem where only edge or link failures are tolerated. In this talk, we show how to extend the previous algorithm and analysis to this more general setting. We will also present some further implications and limitations of this approach; mention other approaches to proving approximation guarantees for these problems; and highlight some open problems.

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