

Edge-connectivity augmentations of bipartite graphs

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Abstract

Given a bipartite graph, the bipartite global edge-connectivity augmentation problem consists of finding a minimum cardinality edge set whose addition results in a bipartite k -edge-connected graph. A min-max theorem and some applications will be presented. This part of the talk is based on [1].

I will also mention some preliminary results from [2] concerning the local case.

References

- [1] J. Bang-Jensen, H. Gabow, T. Jordán, Z. Szigeti, Edge-connectivity augmentation with partition constraints, *SIAM Journal on Disc. Math.* Vol. 12 No. 2 (1999) 160-207.
- [2] Z. Szigeti, On the local splitting off theorem, GRACO2005, 2nd Brazilian Symposium on Graphs, Algorithms and Combinatorics, *Electron. Notes Discrete Math.*, 19, Elsevier, (2005) 57-61.