Advanced topics in algorithms:

bibliography list 4

Here are the reference on algorithms for Maximum flows on planar graphs. It started with Itai and Shiloach [6]. Reif improved their method for finding a minimum cut [8]. Hassin [4] gave a very simple algorithm for maximum flow in $s - t$ planar graphs (meaning that s and t are on the boundary of the same face). More early results can be found in [7, 5]. The new algorithm for directed graphs is by Borradaile and Klein [1]. A simpler presentation was given by Erickson [3]. The extension to multiple sources and sinks is in [2].

References

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[3] J. Erickson. Maximum flows and parametric shortest paths in planar graphs. In *21st SODA*, pages 794–804, 2010.

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[8] J. Reif. Minimum s-t cut of a planar undirected network in $O(n \log^2 n)$ time. *SIAM Journal on Computing*, 12:71–81, 1983.