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Broadcast Problem in k -paths Connected at Two Junctions

Abstract - The broadcast problem is to spread the knowledge of one processor called the originator to all other processors in the network by placing a series of calls along the communication lines of the network. Finding the broadcast time of a vertex in an arbitrary graph is NP-complete. In this paper we will consider the broadcast problem in k -paths connected at two junctions and each path consists of several vertices. We present a $O(|V| + k^2)$ algorithm to find the broadcast time of multi-path graph with k paths. This is a joint work with Hovhannes Harutyunyan.