

Somehow the pdf of the paper cuts off references. Here is the manuscript

information to even partially restrict things. Clearly, the earlier we can cut down on duplicate messages, the better.

Can we do better on the connection between  $G$  and the agreed--upon image  $G'$ ? Broadcasting in  $G'$  by the wide broadcasting strategy will get through (all the edges of  $G$  are present); is there really no strategy that will get through with only polynomially many messages? This seems most unlikely.

Finally, the algorithms presented here depend on having all processes begin together at time 0. In Ordman<sup>7</sup> I eliminate that requirement by using techniques adapted from Burns and Lynch<sup>8</sup>.

#### References

1. Pease, M., R. Shostok & L. Lamport. 1980. Reaching agreement in the presence of faults. *J. Assn. Comp. Mach.* 27: 228-234.
2. Toueg, S., K.J. Perry & T.K. Srikanth. 1985. Fast distributed agreement. *Proc. 4th ACM Symposium on Principles of Distributed Computing*, Minaki, Ontario, Canada: 87-101.
3. Ordman, E.T. 1986. Fault-tolerant networks and graph connectivity. *J. Combinatorial Mathematics and Combinatorial Computing* 1: 191-206.
4. Fischer, M. J., N.A. Lynch & M. Merritt. 1985. Easy impossibility proofs for distributed consensus problems. *Proc. 4th ACM Symposium on Principles of Distributed Computing*, Minaki, Ontario, Canada: 59-70.

5. Even, S. 1979. Graph Algorithms. Computer Science Press. Potomac, Maryland.
6. Garey, M.R. & D.S. Johnson. 1979. Computers and Intractability: A Guide to the Theory of NP-Completeness. Freeman. New York, NY.
7. Ordman, E.T. 1987. A byzantine firing squad algorithm for networks. Proc. IFIP Conf. on Distributed Processing, Amsterdam, October 1987 [to be published by North Holland]
8. Burns, J.E. & N.A. Lynch. 1985. The byzantine firing squad problem. Report, MIT Laboratory for Computer Science, April 1985. [To appear in Advances in Computing Research].