

Dijkstra Prize Papers

In each of the past six years, a prize has been awarded to a research paper that has had a strong impact on research in the area of distributed algorithms. The prize was originally called the “PODC Influential Paper Award”. After the death of Edsger Dijkstra, one of the pioneers of the field, in August, 2002, the prize was renamed the “Dijkstra Prize”, in his honor.

We will study the key contributions of all six of these papers during this semester. In case you want to read the original papers for yourselves, here is a list:

- 2000: L. Lamport. Time, clocks, and the ordering of events in a distributed system. *Communications of the ACM*, 21(7):558-565, July, 1978.
- 2001: M. J. Fischer, N. A. Lynch, and M. S. Paterson. Impossibility of distributed consensus with one faulty process. *Journal of the ACM*, 32(2):374-382, April, 1985.
- 2002: E. W. Dijkstra. Self-stabilizing systems in spite of distributed control. *Communications of the ACM*, 17(11):643-644, November, 1974.
- 2003: M. Herlihy. Wait-free synchronization. *ACM Transactions on Programming Languages and Systems*, 13(1):124-149, January, 1991.
- 2004: R. G. Gallager, P. A. Humblet, and P. M. Spira. A distributed algorithm for minimum-weight spanning trees. *ACM Transactions on Programming Language Systems*, vol. 5, pp. 66-77, 1983.
- 2005: M. Pease, R. Shostak, and L. Lamport. Reaching agreement in the presence of faults. *Journal of the ACM*, 27(2):228-234, April, 1980.