

November 2008

MADALGO seminar by Deepak Ajwani, Aarhus University

Incremental Topological Ordering

I will present a simple algorithm which maintains the topological order of a directed acyclic graph with n nodes under an online edge insertion sequence in $O(n^{\{2.75\}})$ time, independent of the number of edges inserted. I will then show an average case analysis of incremental topological ordering algorithms. After discussing some recent advances in this area, I will talk about dynamic topological ordering in the external memory model.

Joint work with Tobias Friedrich, MPI and Ulrich Meyer, J.W. Goethe Universität.