

AGCO Seminar.

Speakers: Benjamin Berendsohn, Max Planck Institute for Informatics. Alemania

Title: Decremental tree sums.

Abstract:

In this talk, I will discuss the following semi-dynamic graph problem: Maintain a vertex-weighted forest under the following operations: Delete an edge; change the weight of a vertex; and, given a vertex v , return the total weight of all vertices in the same tree as v .

I'll present the following results from joint work with Marek Sokołowski.

- * A data structure with $O(m + n \log^* n)$ time for m operations;
- * a linear-time data structure for *unweighted* forests;
- * and a data structure with (conditionally) optimal, but unknown running time.

At the end, I will briefly speculate on the actual complexity of the problem, and propose some ideas on how to determine it.

When: Jan 28, 03:00 pm - 4:00 pm.

Where: Sala de Seminario von Neuman, 7th floor, CMM, Av. Beauchef 851, Torre Norte.

