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MADALGO seminars by Kasper Green Larsen, Aarhus University

Lower Bounds for Data Structures

Abstract:

This talk will survey the area of data structure lower bounds. It will consist of two separate parts. In the first 45 minutes, I'll give a tutorial on lower bounds for dynamic data structures. This tutorial was presented at the FOCS'12 Workshop on Data Structures, in memory of Mihai Patrascu. The talk will focus in particular on Mihai's contributions to the area. In this last 25 minutes, I'll give a (shorter) overview of the techniques used for proving lower bounds for static data structures. This part of the talk will essentially be the FOCS'12 conference talk for my paper "Higher Cell Probe Lower Bounds for Evaluating Polynomials".