

Lecture #24: Randomly Constructed Binary Search Trees

What Will Happen During the Lecture

The goal of this presentation is to introduce students to another (some-what more complicated) example of the application of discrete probability theory to the analysis of data structures and algorithms.

What Will Be Discussed

The “Quick Sort” algorithm will be discussed and the results from the preparatory reading will be applied to explain the “expected” behaviour of the deterministic version of this algorithm, under an assumption about the the input array that is to be sorted. This will also be applied to analyze the behaviour of a randomized version of this algorithm, when the entries in the input array, that is to be sorted, are distinct.