Optimal Binary Search Trees

Dynamic programming.

Operation Research.

The goal of the maximum weight independent set problem (MWIS) is to compute, for a given set of geometric objects with certain weights, a subset of disjoint (non-overlapping) objects with maximum total weight.

There is a PTAS (polynomial-time algorihtm scheme) for MWIS in disk graphs, provided that a disk representation of the graph is given. The running-time for achieving approximation ratio $1 + \epsilon$ is $n^{O(1/\epsilon^2)}$ for a disk graph with n disks.

Details:

- Executed on : Ter Out 07 09:26:48 BRT 2014.
- Number of disks : 1.
- Execution time : 1,132668 seconds.
- Memory required : 172 bytes.

Nodes

	Name	Probabilities
1	A0	0,00

Table 1: Nodes probabilities.

Contents

Execution

	1	2
0	0,00	340282346638528859811704183484516925440,00
1		0,00

Table 2: Table A.

	1	2
0	0	0
1		0

Table 3: Table R.

Analisis

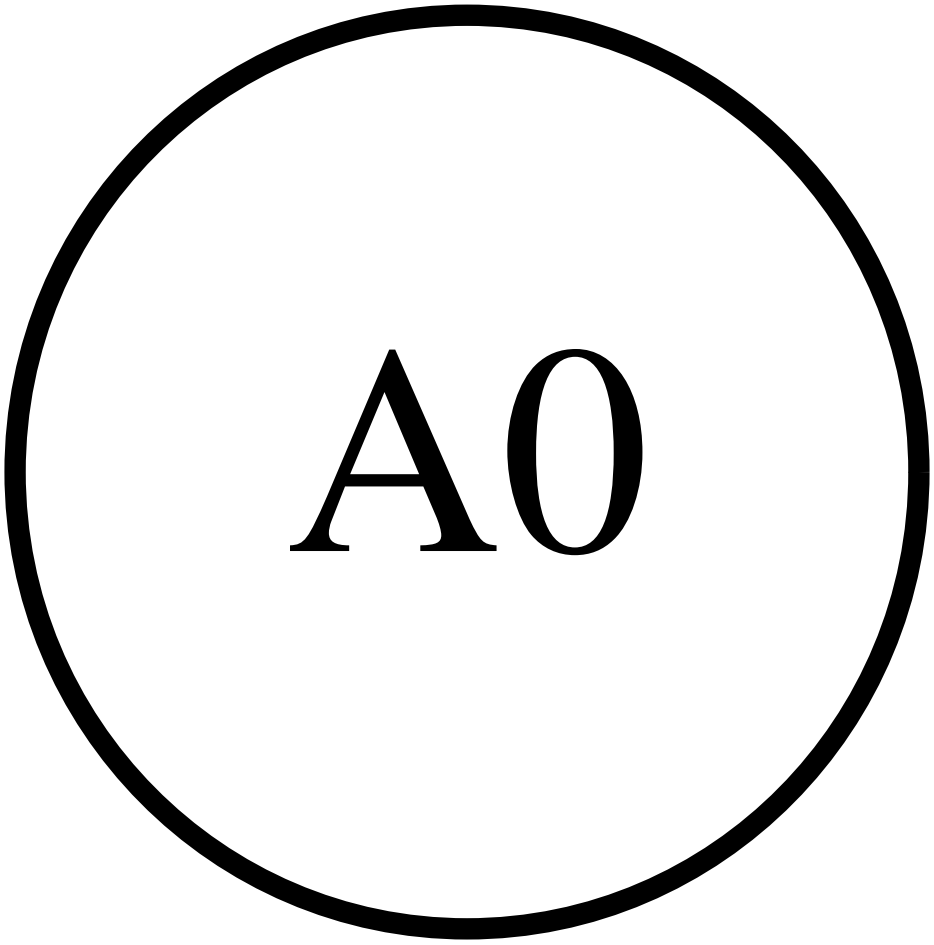

Figure 1: Optimal search tree.

Digest

- Total nodes : 1.
- Levels : 1.
- Expected cost : 340282346638528859811704183484516925440,00.