Redouane ELGHAZI – Studied Problems

Scheduling problems (usually NP-Hard):

- n independent tasks with their execution times (in the simplest case, those are numbers $p_1, \ldots, p_n$);

- m identical processors;

- we want to minimize some objective function (e.g. the energy consumed by the schedule; the finishing time of the last task...).

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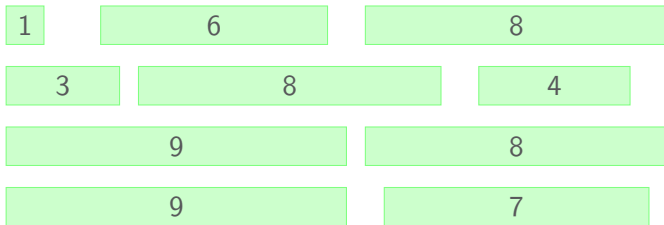We study heuristic (e.g. the greedy *Longest Processing Time* (*LPT*)).

We study asymptotic behaviors of those heuristics through:

- theoretical bounds;

- simulations (personal "framework" in C++, exploitation in Python);

- experiments (future).
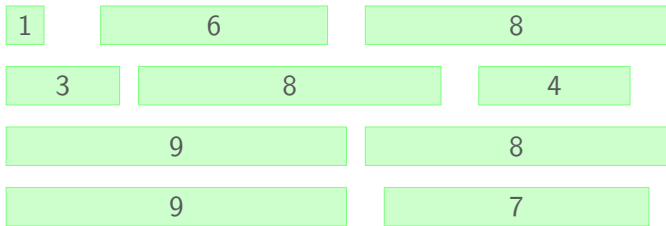
Redouane ELGHAZI – Example

Example instance, with 10 sequential tasks and 3 processors:

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The solution of the greedy heuristic LPT: