Theorem 1. *Let* $X \sim (v_i, f_i)_{0 \le i \le n-1}$*, where* $v_i < v_{i+1}$ *for all* $0 \le i < n-1$ *are possible reservations and* $f_i = \mathbb{P}(v_{i-1} < X \le v_i)$ *is the probability of an application to finish during reservation* v_i *(with* $\sum_{i=0}^{n-1} f_i = 1$*).*

Denote by $F_j = \sum_{\ell=j}^{n-1} f_\ell$ *and* $\mathbb{E}[X] = \sum_{\ell=0}^{n-1} f_\ell v_\ell$*. Then the minimal expected makespan is returned by* $E(-1)$ *where:*

$$E(n-1) = \beta \cdot \mathbb{E}[X]$$

$$E(i) = \min_{i+1 \le i' < n} \left((\alpha \cdot v_{i'} + \gamma) \cdot F_{i+1} + \beta \cdot v_{i'} \cdot F_{i'+1} + E(i') \right)$$

The sequence that minimizes $E(-1)$ *can be computed in* $O(n^2)$*.*

For a job of actual length t, the cost of a reservation t_1 is defined as: $\alpha t_1 + \beta min(t, t_1) + \gamma$, where the α part of this cost is the reservation cost, and the β part is the utilization cost.