

**Theorem 1.** Let  $X \sim (v_i, f_i)_{1 \leq i \leq n}$ , where  $v_i < v_{i+1}$  for all  $1 \leq i \leq n-1$  are possible reservations and  $f_i = \mathbb{P}(X = v_i)$  with  $\sum_{i=1}^n f_i = 1$ . Denote by  $F_j = \sum_{\ell=j}^n f_\ell$ . Then the minimal expected makespan is returned by  $E_{no\_bf}(0)$  where:

$$E_{no\_bf}(n) = \beta \cdot \mathbb{E}[X]$$

$$E_{no\_bf}(i) = \min_{i+1 \leq i' \leq n} \left( (\alpha \cdot v_{i'} + \gamma) \cdot F_{i+1} + \beta \cdot v_{i'} \cdot F_{i'+1} + E_{no\_bf}(i') \right)$$

The sequence that minimizes  $E_{no\_bf}(0)$  can be computed in  $O(n^2)$ .