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Online supplement for
An Improved Branch-and-bound Algorithm for the
One-machine Scheduling Problem with Delayed
Precedence Constraints

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A. Additional Results

In this online supplement, we provide additional results on MLTH:

Table 1: Ratio of MLTH used in all iterations on $1|r_i, q_i|C_{max}$ instances

No. Jobs	$k = 15$	$k = 20$	$k = 25$
$n = 50$	0.4760	0.8635	0.8179
$n = 100$	0.5890	0.8630	0.8605
$n = 200$	0.7397	0.8726	0.8675
$n = 500$	0.8646	0.8658	0.8792
$n = 1000$	0.8558	0.9204	0.8668

Table 2: Ratio of MLTH used in all iterations on $1|r_i, q_i, dpc|C_{max}$ instances

No. Jobs	$k = 10, p = 0.01$	$k = 10, p = 0.02$	$k = 15, p = 0.01$	$k = 15, p = 0.02$
$n = 50$	0.4590	0.7268	0.7839	0.6763
$n = 100$	0.7536	0.6017	0.7086	0.5813

Table 3: Percentage difference from optimal solutions on $1|r_i, q_i|C_{max}$ instances

No. Jobs	$k = 15$		$k = 20$		$k = 25$	
	LTH	MLTH	LTH	MLTH	LTH	MLTH
$n = 50$	0.93%	0.67%	0.93%	0.21%	0.70%	0.15%
$n = 100$	0.54%	0.30%	0.45%	0.10%	0.35%	0.06%
$n = 200$	0.28%	0.11%	0.22%	0.04%	0.17%	0.03%
$n = 500$	0.12%	0.03%	0.08%	0.02%	0.07%	0.01%
$n = 1000$	0.05%	0.01%	0.04%	0.01%	0.03%	0.01%

Table 4: Percentage difference from optimal solutions on $1|r_i, q_i, dpc|C_{max}$ instances

No. Jobs	$k = 10, p = 0.01$		$k = 10, p = 0.02$		$k = 15, p = 0.01$		$k = 15, p = 0.02$	
	LTH	MLTH	LTH	MLTH	LTH	MLTH	LTH	MLTH
$n = 50$	2.73%	3.65%	2.03%	1.17%	1.40%	0.67%	0.85%	0.48%
$n = 100$	0.83%	0.46%	0.33%	0.26%	0.37%	0.21%	0.14%	0.11%