

Parallel machine problems with a single server

- **maximal polynomially solvable:**

$P; S1 s_i = s; p_i = p; r_i C_{max}$	Brucker et al. (2002B) [2]
$P \sum C_i$	Bruno et al. (1974) [5]
$P2; S1 s_i = 1 \sum C_i$	Hall et al. (2000) [7]
$P; S1 s_i = s; p_i = p; r_i \sum C_i$	Brucker et al. (2002B) [2]
$P; S1 p_i = 1 \sum w_i C_i$	Hall et al. (2000) [7]
$P; S1 s_i = s; p_i = 1; r_i \sum w_i C_i$	Brucker et al. (2002B) [2]
$P p_i = p; r_i \sum w_i C_i$	Brucker & Kravchenko (2008) [4]
$P; S1 p_i = 1 \sum U_i$	Hall et al. (2000) [7]
$P; S1 s_i = s; p_i = 1; r_i \sum w_i U_i$	Brucker et al. (2002B) [2]
$Pm p_i = p; r_i \sum w_i U_i$	Baptiste et al. (2004) [1]
$P; S1 s_i = s; p_i = p \sum w_i U_i$	Assignment problem
$P; S1 s_i = s; p_i = 1; r_i \sum T_i$	Brucker et al. (2002B) [2]
$P p_i = p; r_i \sum T_i$	Brucker & Kravchenko (2005) [3]
$P p_i = 1; r_i \sum w_i T_i$	Networkflowproblem
$P; S1 s_i = 1; p_i = 1; r_i \sum w_i T_i$	Assignment problem
$P; S1 s_i = s; p_i = p \sum w_i T_i$	Assignment problem

- **maximal pseudopolynomially solvable:**

$P2; S1 s_i = 1 C_{max}$	Hall et al. (2000) [7], Kravchenko & Werner (1997) [8]
$Pm r_i C_{max}$	Lawler et al. (1989) [9]
$Pm \sum w_i C_i$	Lawler et al. (1989) [9]
$P2; S1 p_i = 1 \sum w_i U_i$	Single-machine problem, Hall et al. (2000) [7]
$Pm \sum w_i U_i$	Lawler et al. (1989) [9]
$P2; S1 p_i = 1 \sum T_i$	Single-machine problem, Hall et al. (2000) [7]

- **minimal NP-hard:**

$P2 C_{max}$	Lenstra et al. (1977) [11]
$P2; S1 p_i = p C_{max}$	Brucker et al. (2002B) [2]
* $P C_{max}$	Garey & Johnson (1978) [6]
* $P2; S1 s_i = s C_{max}$	Hall et al. (2000) [7]
* $P2; S1 p_i = 1; r_i L_{max}$	Single-machine problem, Brucker et al. (2002B) [2]
* $P2; S1 s_i = 1 L_{max}$	Hall et al. (2000) [7]
$P2; S1 p_i = p \sum C_i$	Brucker et al. (2002B) [2]
* $P2 r_i \sum C_i$	Single-machine problem
* $P2; S1 p_i = 1; r_i \sum C_i$	Single-machine problem, Brucker et al. (2002B) [2]
* $P2; S1 s_i = s \sum C_i$	Hall et al. (2000) [7]
* $P; S1 s_i = 1 \sum C_i$	Brucker et al. (2002B) [2]
$P2 \sum w_i C_i$	Bruno et al. (1974) [5]
* $P \sum w_i C_i$	Lenstra (-) [10]
$P2; S1 p_i = 1 \sum w_i U_i$	Single-machine problem, Hall et al. (2000) [7]
$P2; S1 p_i = 1 \sum T_i$	Single-machine problem, Hall et al. (2000) [7]
* $P2; S1 p_i = 1 \sum w_i T_i$	Single-machine problem, Hall et al. (2000) [7]

- **minimal open:**

$P2; S1 p_i = 1; r_i C_{max}$	$P p_i = p; r_i \sum U_i$
$P2; S1 s_i = 1; p_i = p; r_i L_{max}$	$P2 p_i = p; r_i \sum w_i T_i$
$Pm; S1 s_i = 1 \sum C_i$	$P2; S1 s_i = s; p_i = 1; r_i \sum w_i T_i$
$P2; S1 s_i = 1; p_i = p; r_i \sum w_i C_i$	

- **maximal open:**

$P; S1 p_i = 1; r_i C_{max}$	$P; S1 s_i = s; p_i = p; r_i \sum w_i U_i$
$Pm; S1 s_i = 1 \sum C_i$	$P; S1 s_i = s; p_i = p; r_i \sum w_i T_i$

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