Open-shop problems with preemption

- **maximal polynomially solvable:**

$O\|pmtn; r_i\|L_{max}$	Cho & Sahni (1981) [1]

- **minimal NP-hard:**

$*$	$O2\|chains; pmtn\|C_{max}$	Lenstra (-) [5]
	$O2\|pmtn\|\sum C_i$	Du & Leung (1993) [2]
$*$	$O2\|chains; pmtn\|\sum C_i$	Lenstra (-) [5]
$*$	$O2\|pmtn; r_i\|\sum C_i$	Sriskandarajah & Wagneur (1994) [7]
$*$	$O3\|pmtn\|\sum C_i$	Liu & Bulfin (1985) [6]
$*$	$O2\|pmtn\|\sum w_i C_i$	Lenstra (-) [5]
	$O2\|pmtn\|\sum U_i$	Lawler et al. (1981,1982) [3] [4]

References

[1] Y. Cho and S. Sahni. Preemptive scheduling of independent jobs with release and due times on open, flow and job shops. *Oper. Res.*, 29(3):511–522, 1981.

[2] J. Du and J.Y.-T. Leung. Minimizing mean flow time in two-machine open shops and flow shops. *J. Algorithms*, 14(1):24–44, 1993.

[3] E.L. Lawler, J.K. Lenstra, and A.H.G. Rinnooy Kan. Minimizing maximum lateness in a two-machine open shop. *Math. Oper. Res.*, 6(1):153–158, 1981.

[4] E.L. Lawler, J.K. Lenstra, and A.H.G. Rinnooy Kan. Erratum: "Minimizing maximum lateness in a two-machine open shop" [Math. Oper. Res. **6** (1981), no. 1, 153-158]. *Math. Oper. Res.*, 7(4):635, 1982.

[5] J.K. Lenstra. Not published.

[6] C.Y. Liu and R.L. Bulfin. On the complexity of preemptive open-shop scheduling problems. *Oper. Res. Lett.*, 4(2):71–74, 1985.

[7] C. Sriskandarajah and E. Wagneur. On the complexity of preemptive openshop scheduling problems. *European J. Oper. Res.*, 77(3):404–414, 1994.