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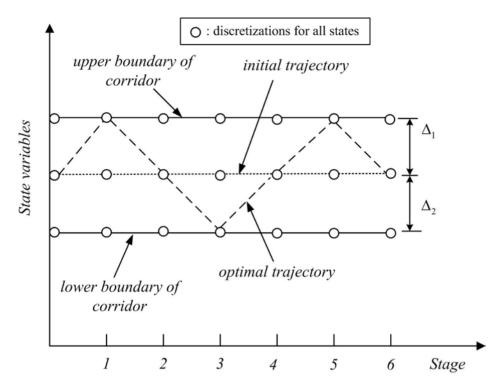


Fig. 1 Construction of the 3-valued corridor

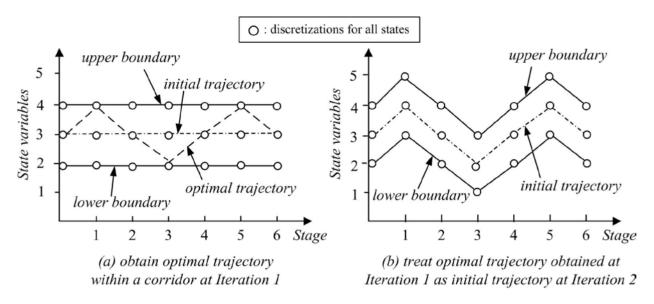
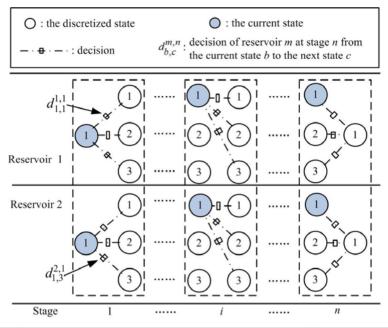


Fig. 2 Schematic diagram of an iteration process



Stage	Decision combinations	Number of decisions
1	$\{(d_{1,1}^{1,1},d_{1,1}^{2,1}),(d_{1,1}^{1,1},d_{1,2}^{2,1}),(d_{1,1}^{1,1},d_{1,3}^{2,1}),\cdots,(d_{1,3}^{1,1},d_{1,1}^{2,1}),(d_{1,3}^{1,1},d_{1,2}^{2,1}),(d_{1,3}^{1,1},d_{1,3}^{2,1})\}$	3^2
i	$ \{ (d_{1,1}^{1,i}, d_{1,1}^{2,i}), (d_{1,1}^{1,i}, d_{1,2}^{2,i}), (d_{1,1}^{1,i}, d_{1,3}^{2,i}), L, (d_{1,3}^{1,i}, d_{1,1}^{2,i}), (d_{1,3}^{1,i}, d_{2,1}^{2,i}), (d_{1,3}^{1,i}, d_{2,3}^{2,i}), \\ (d_{1,1}^{1,i}, d_{2,1}^{2,i}), (d_{1,1}^{1,i}, d_{2,2}^{2,i}), (d_{1,1}^{1,i}, d_{2,3}^{2,i}), L, (d_{1,3}^{1,i}, d_{2,1}^{2,i}), (d_{1,3}^{1,i}, d_{2,2}^{2,i}), (d_{1,3}^{1,i}, d_{2,3}^{2,i}), \\ (d_{1,1}^{1,i}, d_{3,1}^{2,i}), (d_{1,1}^{1,i}, d_{3,2}^{2,i}), (d_{1,1}^{1,i}, d_{3,3}^{2,i}), L, (d_{1,3}^{1,i}, d_{3,1}^{2,i}), (d_{1,3}^{1,i}, d_{3,2}^{2,i}), (d_{1,3}^{1,i}, d_{3,3}^{2,i}), \\ \vdots \\ (d_{3,1}^{1,i}, d_{1,1}^{2,i}), (d_{3,1}^{1,i}, d_{1,2}^{2,i}), (d_{3,1}^{1,i}, d_{1,3}^{2,i}), \cdots, (d_{3,3}^{1,i}, d_{1,1}^{2,i}), (d_{3,3}^{1,i}, d_{2,2}^{2,i}), (d_{3,3}^{1,i}, d_{2,3}^{2,i}), \\ (d_{3,1}^{1,i}, d_{2,1}^{2,i}), (d_{3,1}^{1,i}, d_{2,2}^{2,i}), (d_{3,1}^{1,i}, d_{2,3}^{2,i}), \cdots, (d_{3,3}^{1,i}, d_{2,1}^{2,i}), (d_{3,3}^{1,i}, d_{2,2}^{2,i}), (d_{3,3}^{1,i}, d_{2,3}^{2,i}), \\ (d_{3,1}^{1,i}, d_{3,1}^{2,i}), (d_{3,1}^{1,i}, d_{3,2}^{2,i}), (d_{3,1}^{1,i}, d_{3,3}^{2,i}), \cdots, (d_{3,3}^{1,i}, d_{3,1}^{2,i}), (d_{3,3}^{1,i}, d_{3,2}^{2,i}), (d_{3,3}^{1,i}, d_{3,3}^{2,i}), (d_{3,3}^{1,i}, d_{3,3}^{$	3 ^{2×2}
n	$\{(d_{1,1}^{1,n},d_{1,1}^{2,n}),(d_{1,1}^{1,n},d_{2,1}^{2,n}),(d_{1,1}^{1,n},d_{3,1}^{2,n}),\cdots,(d_{3,1}^{1,n},d_{1,1}^{2,n}),(d_{3,1}^{1,n},d_{2,1}^{2,n}),(d_{3,1}^{1,n},d_{3,1}^{2,n})\}$	3 ²

Fig. 3 Schematic diagram of decision combinations

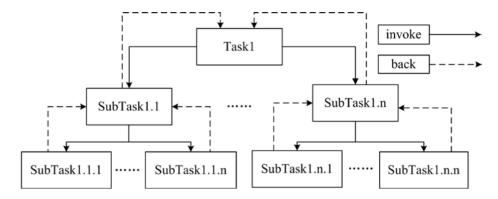


Fig. 4 Schematic diagram of divide-and-conquer strategy

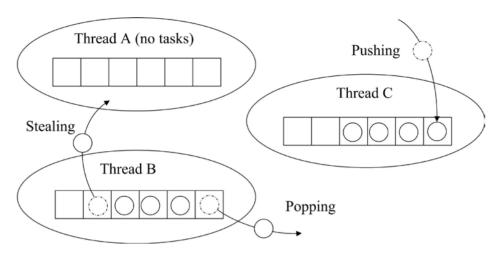


Fig. 5 Schematic diagram of work-stealing

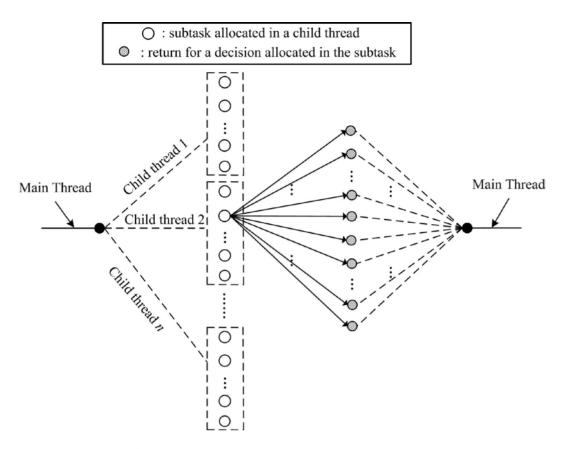


Fig. 6 Sketch map of division of the main thread

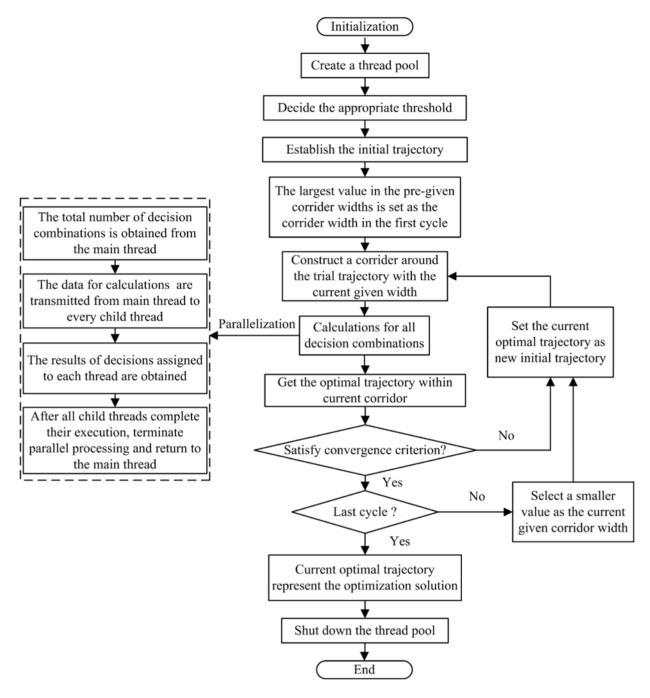


Fig. 7 Flow chart of the PDDDP algorithm

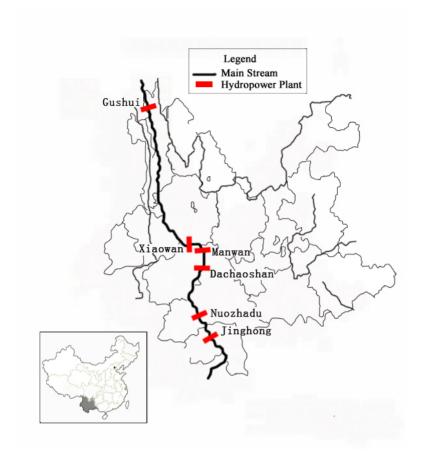


Fig. 8 Distribution map of Lancang River

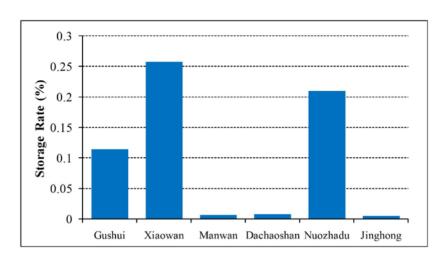
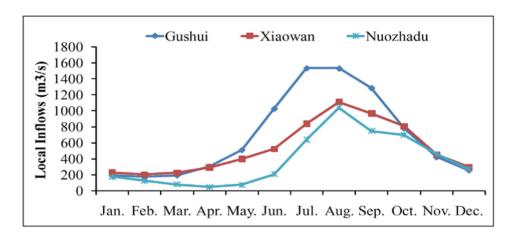


Fig. 9 Storage rates of hydropower plants



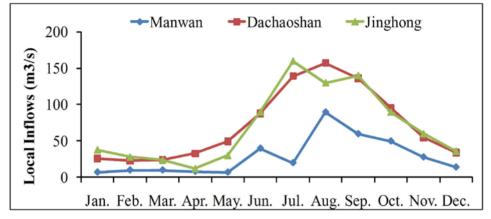
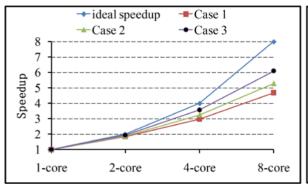


Fig. 10 Multi-year mean monthly local inflows of hydropower plants



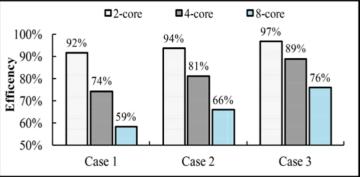


Fig. 11 Speedup and efficiency of the proposed PDDDP in three cases for Configuration 1

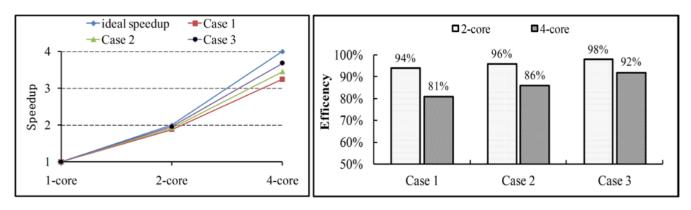


Fig. 12 Speedup and efficiency of the proposed PDDDP in three cases for Configuration 2

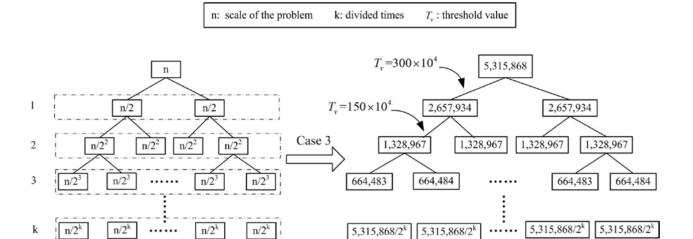


Fig. 13 Division for case 3 with divide-and-conquer algorithms