Appendix Figures

Fig. 1 Construction of the 3-valued corridor
Fig. 2 Schematic diagram of an iteration process
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
Fig. 1 Construction of the 3-valued corridor
Fig. 2 Schematic diagram of an iteration process

(a) obtain optimal trajectory within a corridor at Iteration 1
(b) treat optimal trajectory obtained at Iteration 1 as initial trajectory at Iteration 2
**Fig. 3** Schematic diagram of decision combinations

<table>
<thead>
<tr>
<th>Stage</th>
<th>Decision combinations</th>
<th>Number of decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>((d_{1,1}^{1,1}, d_{1,1}^{1,1}), (d_{1,1}^{1,1}, d_{1,2}^{1,1}), (d_{1,1}^{1,1}, d_{1,3}^{1,1}), \ldots, (d_{1,1}^{1,3}, d_{1,2}^{1,3}), (d_{1,2}^{1,3}, d_{1,3}^{1,3}))</td>
<td>(3^2)</td>
</tr>
<tr>
<td>\vdots</td>
<td>\vdots</td>
<td>\vdots</td>
</tr>
<tr>
<td>(i)</td>
<td>((d_{1,1}^{i,1}, d_{1,1}^{i,1}), (d_{1,1}^{i,1}, d_{1,2}^{i,1}), (d_{1,1}^{i,1}, d_{1,3}^{i,1}), \ldots, (d_{1,3,i}, d_{1,3,i}), (d_{2,1}^{i,3}, d_{2,1}^{i,3}), (d_{2,1}^{i,3}, d_{2,2}^{i,3}), (d_{2,1}^{i,3}, d_{2,3}^{i,3}), \ldots, (d_{3,1}^{i,3}, d_{3,2}^{i,3}), (d_{3,1}^{i,3}, d_{3,3}^{i,3}))</td>
<td>(3^2 \times 2)</td>
</tr>
<tr>
<td>\vdots</td>
<td>\vdots</td>
<td>\vdots</td>
</tr>
<tr>
<td>(n)</td>
<td>((d_{1,1}^{n,1}, d_{1,1}^{n,1}), (d_{1,1}^{n,1}, d_{1,2}^{n,1}), (d_{1,1}^{n,1}, d_{1,3}^{n,1}), \ldots, (d_{1,3,n}, d_{1,2}^{n,1}), (d_{1,3,n}, d_{1,3}^{n,1}), \ldots, (d_{n,1}^{n,3}, d_{n,2}^{n,3}), (d_{n,1}^{n,3}, d_{n,3}^{n,3}))</td>
<td>(3^n)</td>
</tr>
</tbody>
</table>
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