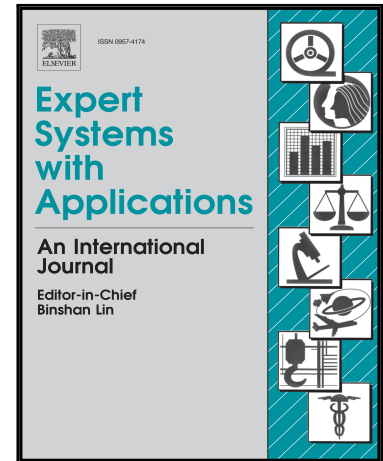


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Balanced connected task allocations for multi-robot systems: an exact flow-based integer program and an approximate tree-based genetic algorithm

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Highlights

- Two approaches to partition a node-weighted graph into q balanced connected parts
- The first GA for BCP_q ($q \geq 2$) and it outperforms existing algorithm when $q=2$
- The GA can obtain good near-optimal results after a few individuals were evolved
- The first mixed integer linear program (MILP), an exact algorithm, for BCP_q ($q \geq 2$)
- The MILP solves 100 more nodes than existing work within same time limits when $q=2$

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