

The authors introduced an improved Rapidly-exploring Random Tree (RRT) algorithm that integrates adaptive step size optimization with KD-Tree fast matching search. To demonstrate the feasibility of the proposed algorithm, the authors have compared the improved RRT with traditional RRT, RRT*, and Informed-RRT*.

The idea of the proposed algorithm is very interesting. However, it is recommended to improve the quality of the paper based on the following suggestions and comments.

Pont 1: Section 1 and 2 are fine. However, this paper has a lack of references. Therefore, the authors are suggested to add some recent studies related to, e.g. decision tree algorithm, . For instance, (1) Density gradient-RRT: An improved rapidly exploring random tree algorithm for UAV path planning; (2) Rapidly-exploring Random Trees multi-robot map exploration under optimization framework; (3) More Quickly-RRT*: Improved Quick Rapidly-exploring Random Tree Star algorithm based on optimized sampling point with better initial solution and convergence rate; (4) RDT-RRT: Real-time double-tree rapidly-exploring random tree path planning for autonomous vehicles; (5) Bidirectional rapidly exploring random tree path planning algorithm based on adaptive strategies and artificial potential fields; (6) A rapidly-exploring random trees approach to combined task and motion planning; and (7) CDRT-RRT*: Real-time rapidly exploring Random Tree Star based on convex dissection. Please consider to comment and cite them in Section 2!

Point 2: The organization of this paper should be added in the last paragraph of Section 1.

Point 3: The pseudo-code of the proposed algorithm should be added in this paper.

Point 4: Please include runtime complexity of the proposed algorithm!

Point 5: What are the merits and limitations of the proposed algorithm?