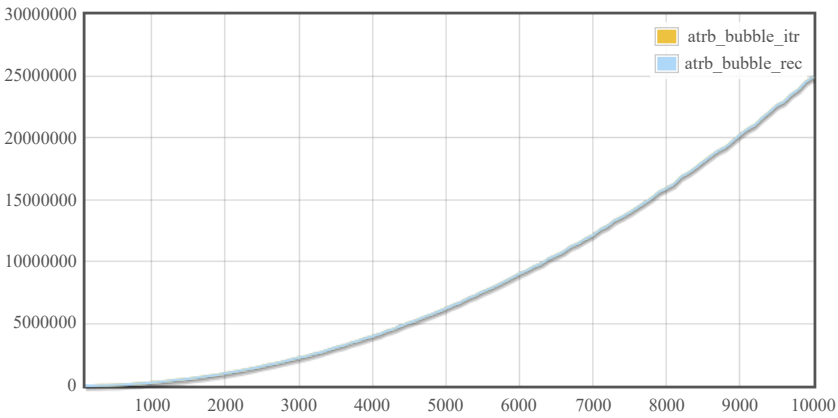


Operation counters

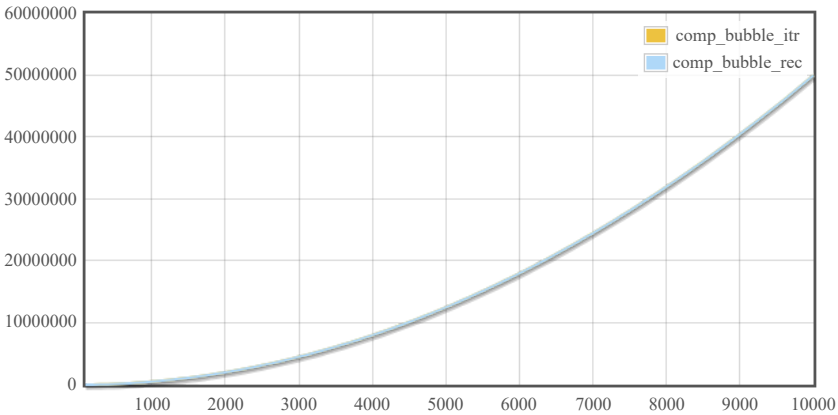
| size | atrb_bubble_itr | atrb_bubble_rec |
|------|-----------------|-----------------|
| 100  | 2455            | 2455            |
| 200  | 10201           | 10201           |
| 300  | 22573           | 22573           |
| 400  | 39964           | 39964           |
| 500  | 62507           | 62507           |
| 600  | 89485           | 89485           |
| 700  | 121908          | 121908          |
| 800  | 156462          | 156462          |
| 900  | 203181          | 203181          |

atrb\_bubble



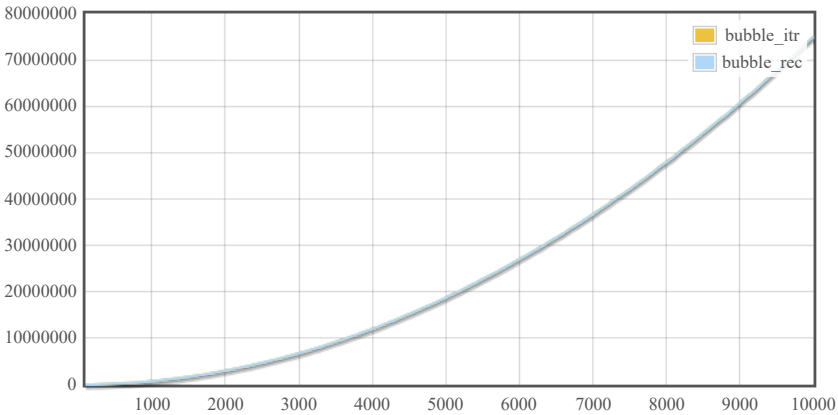
| size | comp_bubble_itr | comp_bubble_rec |
|------|-----------------|-----------------|
| 100  | 4857            | 4857            |
| 200  | 19717           | 19717           |
| 300  | 44718           | 44718           |
| 400  | 79508           | 79508           |
| 500  | 124235          | 124235          |
| 600  | 178615          | 178615          |
| 700  | 244226          | 244226          |
| 800  | 319293          | 319293          |
| 900  | 403632          | 403632          |

comp\_bubble



| size | bubble_itr | bubble_rec |
|------|------------|------------|
| 100  | 7312       | 7312       |
| 200  | 29918      | 29918      |
| 300  | 67291      | 67291      |
| 400  | 119472     | 119472     |
| 500  | 186742     | 186742     |
| 600  | 268100     | 268100     |
| 700  | 366134     | 366134     |
| 800  | 475755     | 475755     |
| 900  | 606813     | 606813     |

total\_bubble



Execution times

Time

| size | time_itr | time_rec |
|------|----------|----------|
| 100  | 4        | 296      |
| 200  | 10       | 581      |
| 300  | 20       | 920      |
| 400  | 36       | 1201     |
| 500  | 55       | 1569     |
| 600  | 78       | 1895     |
| 700  | 102      | 2139     |
| 800  | 134      | 2598     |
| 900  | 168      | 2847     |

