$\log n$ - Space, $n^{3/2}$ Time Quantum Sort.

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[Kla03], [Fun21]

Result: Sorting $A_1, A_2, ..A_n$

```
for i ∈ [n] do
    for j ∈ [n] do
        if A_i < A_j then
            swap A_i ↔ A_j
        end
    end
end
```

Algorithm 1: "ICan'tBelieveItCanSort" alg.

References

[Kla03] Hartmut Klauck. *Quantum Time-Space Tradeoffs for Sorting*. 2003. arXiv: quant-ph/0211174 [quant-ph].

[Fun21] Stanley P. Y. Fung. "Is this the simplest (and most surprising) sorting algorithm ever?" In: *CoRR* abs/2110.01111 (2021). arXiv: 2110.01111. URL: https://arxiv.org/abs/2110.01111.