

Can anything be done about worst case?

Recall that regardless of the “average” case, that if we expect mostly-sorted inputs, then the runtime will be bad.

Can we address the issue of a sorted list leading to  $n^2$  runtime with the partitioning algorithm we are using?

- What if we randomly shuffled the data, then sorted?
- What if we randomly select the pivot value?

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What if we then see whether the pivot is good and, if not, choose another random pivot?

- What if we did MoM's Median finding in the Partition Call?