

Augment the Study

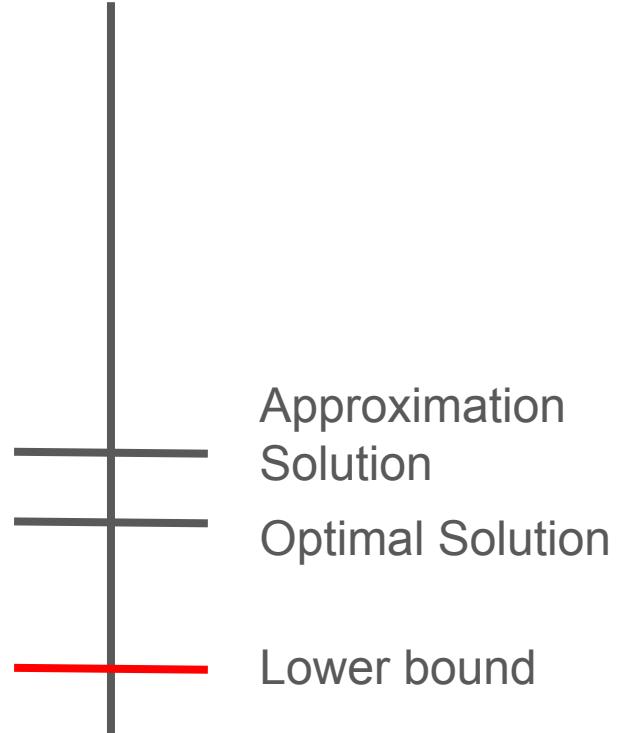
-Finding our lower bound-

Has to be:

Lower Bound cost \leq Optimal cost \leq Approx cost

Poly time Exp time Poly time

It is important because it provides a baseline so we know how close our approximation is to our optimal



How to get our lower bound – 1 tree bound

Step 1 - pick a root

Step 2 - build an MST with on all nodes except
the root

Step 3 - add the two cheapest edges incident to
the root

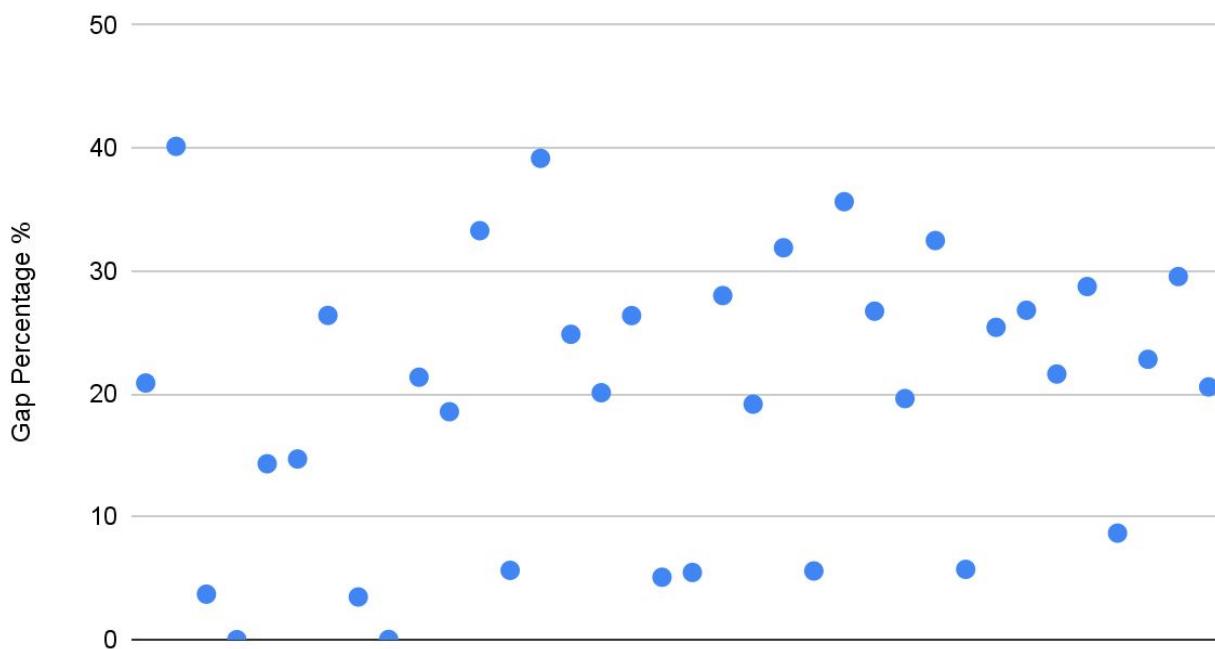


Runtime $O(n^2 \log n)$

shutterstock.com · 472878322

Comparing values - Gap Percentage

Gap Percentage Lower Bound vs Approximation



The average:
19.9%



What does this mean?



Thank you

