

# 05-K-10 Delaunay Triangulation

RIC Analysis

- Further Consideration

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## Rebucketed Once?

- ❖ It's true that the number of points that required rebucketing is  $O(n \log n)$
- ❖ But when a point is inserted, **many** rebucketing operations may be needed (one for the initial insertion and one for each additional edge flip)
- ❖ We'll not analyze carefully the total number of individual rebucketings per point but it is not hard to show that ...
- ❖ The expected total number of individual rebucketing operations will not be larger by more than a **constant** factor, since ...
- ❖ As argued above, each insertion causes only a **constant** number of edge flips
- ❖ Hence, the number of individual rebucketings per insertion is also a **constant**