

## **Delaunay Triangulation**

**RIC Analysis** 

- Probability Of Rebucketing

Junhui DENG

deng@tsinghua.edu.cn

## Backward Analysis

❖ Let q be such an un-inserted site and

let  $\Delta$ abc be the triangle containing q after the  $[i^{th}]$  insertion

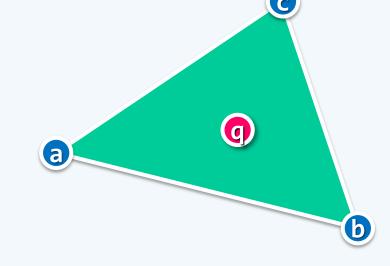
❖ Point q required

(at least) one rebucketing

only if

∆abc was newly created

after the ith insertion



**❖** And furthermore ...

## Backward Analysis

❖ ∆abc was newly created after the ith insertion

only if

∆abc is incident to the ith inserted site

Our assertion then follows

from the facts that

- $\Delta$  is incident to exactly 3 sites and
- each vertex has an equal probability of to be the last-inserted one

