

Title: Epsilon Nets and VC-Dimension

Abstract

Geometric set cover is the special case of the set cover problem, where the universe and the collection of sets over the universe correspond to geometric objects. For example, consider a set P of points and a set D of disks in the Euclidean plane. A set cover problem can be defined by asking for the minimum number of disks from D that cover all points in P .

In this talk, we will discuss the concepts of VC-dimension and ϵ -nets, as well as describe their applications in deriving better approximation algorithms for geometric set cover problems.

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