

# Constellation Models for Sketch Recognition

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## Introduction

- Goal: Recognition of user drawings – objects, diagrams or maps
- Similar to goals of image interpretation in computer vision
- Apply constellation or “pictorial” model to represent sketch objects

## Introduction (contd.)

- Maximum-likelihood labeling for an unlabelled sketch
- Searches through possible label assignments using a multi-pass branch and bound algorithm

## Introduction (contd.)

- Output of the algorithm: Set of labels assigned to strokes!
- Useful for a variety of applications
  - To construct parameterized 3D Models
  - Instance models in a 2D or 3D scene
  - Partially interpret a large sketched diagram

## Introduction (contd.)

- Assumptions:
  - Similar parts drawn with similar strokes
  - “Mandatory” parts have only one instance in the sketch
  - “Optional” parts have multiple instances