

Project 2: Hill Climbing and Simulated Annealing to Solve Travel Salesman Problem

Jianlin Cheng

University of Missouri, Columbia

Fall Semester, 2013

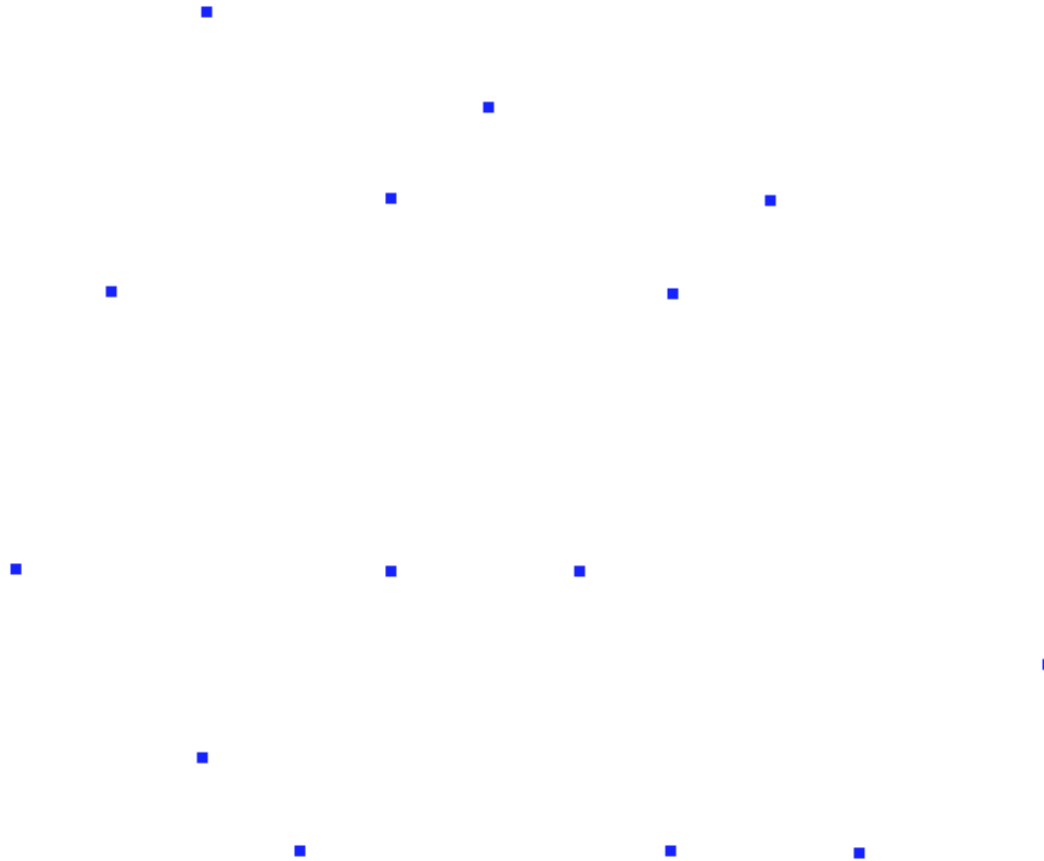
Travel Salesman Problem



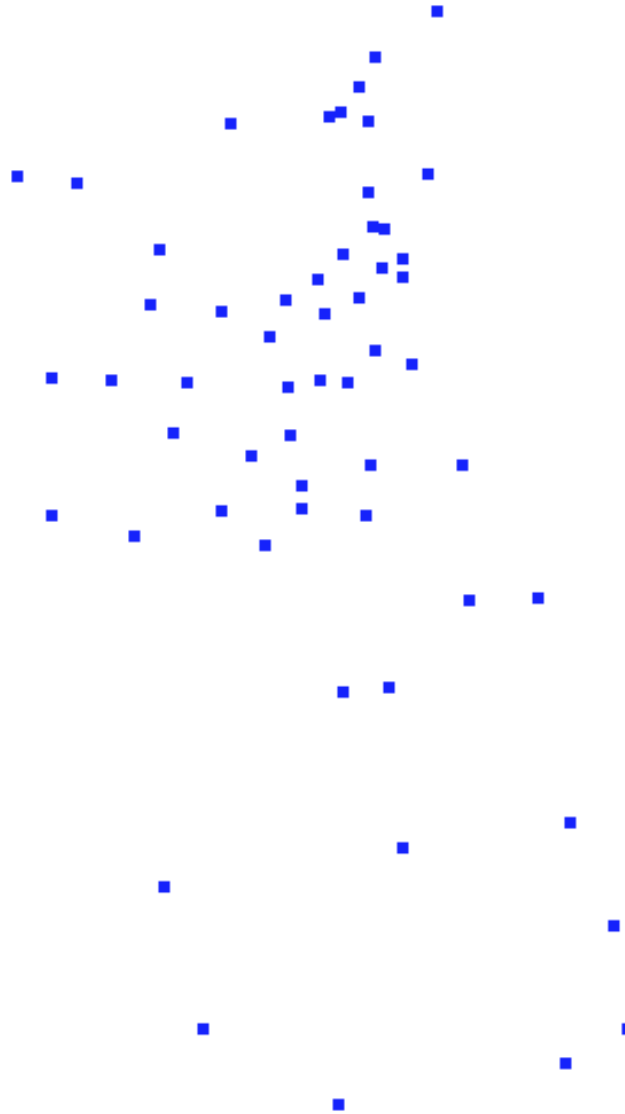
Travel Salesperson Problem

- City-City distance data:
<http://people.sc.fsu.edu/~jburkardt/datasets/cities/cities.html>
- Develop a hill-climbing algorithm and a simulated annealing algorithm for the problem

17-City Map



57-City Map



Discussions

- **Two algorithms and alternatives**
- **How to improve robustness of algorithms**
- **How to design good move sets**
- **Assess the impact of temperature**
- **Assess the impact of move sets**
- **Challenges? (time complexity, size of the problem)**
- **Compare the two algorithms**
- **Evaluate the two algorithms**
- **Presentation of results**
- **Task assignment**