Single-Source Shortest path

[def]

[identity]

[intro]

Single-source shortest path problem:

[variants]

1. Single-destination shortest-paths problem
2. Single-pair shortest path problem
3. All-pairs shortest path problem
4. Single-destination shortest-paths problem:
5. Single-pair shortest path problem:
6. All-pairs shortest path problem:

[theorem]

2.

[pf]

2.

Hence proved.

Negative-weighted edge

Cycle

Relaxation:

[identity]

1.

2.

3.

[method]

1. Bellman-Ford algorithm
2. Dijkstra’s algorithm

[analysis]

[pseudo code]