实验参数设置

- settings
  - a real road network of Hennepin County, MN, USA
  - an area of 8 × 8 km^2 that contains 6,109 road segments and 3,593 intersections
  - java or c++
- algorithms

Algorithm	Direction sharing	Waypoint selection	Parallel requesting
Baseline	√	Greedy by Euclidean distance	√
Proposed in Journal	√	Select-sort by sharing ability	√

- Performance metrics
  - the average number of external route requests submitted to the Web mapping service per user query
  - the average query response time per user query
    - the time from the time when the query is received by the LBS provider to the time when the answer is returned to the querying user.
- **default parameters:**
  - query/user distribution: Gaussian(σ=3) (bells: 10)
    - the number of queries in bells follow Zipf's law (2015_TKDE, 2001_SIGMOD)
  - 100 queries per second
  - 10 waypoints
  - 200 parallel requests
- **parameter range (**with respect to):
  - Effect of different query distribution
    - Gaussian(σ=3) (bells: 1), Gaussian(σ=3) (bells: 5), Gaussian(σ=3) (bells: 10), Gaussian(σ=3) (bells: 20), uniform
    - Gaussian(σ=1) (bells: 10), Gaussian(σ=3) (bells: 10), Gaussian(σ=5) (bells: 10), Gaussian(σ=10) (bells: 10)
  - Effect of the number of queries per second (Query Arrival Rates)
    - 10, 50, 100, 150, 200
  - Effect of the number of waypoints
    - 2, 4, 8, 16, 20
  - Effect of the number of parallel requests
    - 50, 100, 150, 200, 300
  - Effect of different web mapping services