Toward Efficient Database Systems

The database systems are now one of the essential and fundamental tools for managing and processing large-scale data generated by various applications. However, it is not a trivial work to ensure high performance data processing on existing database systems and algorithms. In order to overcome the performance limitations, we are now developing high performance database systems and fast data processing algorithms to cope with the large-scale data. Especially in the recent few years, we are currently studying efficient processing/search algorithms that are focused on graph structured data.

Graph Clustering

- Find dense components from a graph
- Community detection over social networks
- Event detection from microblogging services
- and more...

Efficiency

- Our algorithm runs x500 faster than SCAN
  - It computes 1.4 billion edges within 6.4 sec.