

Data Management for Emerging Problems in Large Networks

- ✓ **Big-Graphs: Querying, Mining, Streaming, Uncertainty, Systems, and Beyond**
- ✓ **User-friendly, efficient, and approximate querying and pattern mining using scalable algorithms, machine learning techniques, and distributed systems**

Knowledge-Graph Search
[SIGMOD 2011, VLDB 2013, ICDE 2012 Tutorial, ACM SIGMOD Blog Post, Big Data Encyclopedia, ICDE 2020]

Graph Query-By-Example
[ICDE 2014, TKDE 2015]

Graph Stream Summarization and Query
[SNAM 2017]

Spatial/ Road Network Query [TKDE 2019, SIGMOD 2020]

Scalable, Approximate Graph Querying

Reliability Search
[EDBT 2014, VLDB 2015 Tutorial, TKDE 2018, Book @Morgan&Claypool, VLDB 2019]

Influence Maximization
[SDM 2011, ICDE 2016, CIKM 2017, SIGMOD 2018]

Influence Graph Embedding
[ICDE 2018]

Uncertain Graph Processing

Proximity Pattern Mining
[SIGMOD 2010]

Graph Anomaly Detection
[CIKM 2012]

Graph-based Entity Resolution
[CIKM 2017, VLDB 2018]

Graph Summary, Core Decomposition
[SIGMOD 2019, VLDB 2017 Tutorial]

Complex Graph Mining

Complementary Graph Partition
[SIGMOD 2012]

Graph Storage Decoupling and Smart Query Routing
[USENIX ATC 2018]

Vertex-Centric Graph Processing
[VLDB 2014 Tutorial, EDBT 2017]

Distributed Graph Systems

Relational Data
[SIGMOD 2014]

Stream Data
[SIGMOD 2016]

Blockchain Network
[WebConf 2020]

Crowd-Sourcing
[CIKM 2017, VLDB 2018]

Other Big-Data Processing