

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,
Encyclopedia of Big Data]

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

**Graph Stream
Summarization and Query**
[SNAM 2017]

**Spatial/ Road Network
Query** [TKDE 2019]

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]

Crowd-Sourcing
[CIKM 2017,
VLDB 2018]

Other Big-Data
Processing