

# 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 11, VLDB 13, ICDE 12 Tutorial, ACM SIGMOD Blog Post, Encyclopaedia of Big Data Technologies, ICDE 20, 22, KBS 22, CIKM 22, SIGMOD Record 23]

## **Graph Query-By-Example**

[ICDE 14, TKDE 15]

## **Graph Stream Summarization and Query**

[SNAM 17]

## **Spatial/ Road Network Query**

[TKDE 20, SIGMOD 20]

Scalable, Approximate Graph Querying

## **Reliability and Shortest Path**

[EDBT 14, VLDB 15 Tutorial, TKDE 18, 20, Book @Morgan&Claypool, VLDB 19, VLDB 21, TKDE 22]

## **Influence Maximization and Embedding**

[SDM 11, ICDE 16, CIKM 17, ICDE 18, SIGMOD 18, ICDE 23]

## **Densest subgraph**

[ICDE 23]

Uncertain Graph Processing

## **Novel Pattern Mine**

[SIGMOD 10, VLDB 20]

## **Graph Anomaly Detect**

[CIKM 12]

## **Graph-based Entity Resolute**

[CIKM 17, VLDB 18]

## **Graph Summary, Core Decompose, Multi-layer and Hypergraph**

[SIGMOD 19, VLDB 17 Tutorial, TKDD 22, VLDB 23]

Complex Graph Mining

## **Information-centric Distributed Graph Embedding**

[VLDB 23]

## **Complementary Graph Partitioning**

[SIGMOD 12]

## **Graph Storage Decoupling and Smart Query Routing**

[USENIX ATC 18]

## **Vertex-Centric Graph Processing**

[VLDB 14 Tutorial, EDBT 17]

Distributed Graph Systems

## **Relational Data**

[SIGMOD 14]

## **Stream Data**

[SIGMOD 16]

## **Blockchain Network**

[WebConf 20, 21, WSDM 22, CIKM 22 Tutorial]

## **Crowd-Sourcing**

[CIKM 17, VLDB 18]

## **ML on Graphs**

[BigData 20, 22, DSAA Tutorial 23]

Other Big Data Processing