

TLDKS *Special Edition*

Consistency and Inconsistency in Data-centric Applications

Call for Journal Papers

The [COIN workshop](#) on Consistency and Inconsistency at DEXA-2016 was a very pleasant success, brimming with animated discussions and fruitful interchanges among all participants. The [presented papers](#) have been published in the IEEE series of DEXA Workshop proceedings. Visit http://dexa.org/coin_2016/index.html, http://dexa.org/coin_2016/program.html for more information on the COIN workshop.

Now, we call for contributions to a special edition of the TLDKS journal subseries of Springer LNCS, from distinguished colleagues working in fields related to (in)consistency of data and information. The special edition will also contain enhanced versions of selected papers presented at COIN.

Consistency is an ubiquitous concern in all of computing, particularly in databases, knowledge-based systems and applications related to linked and big data. In each of these fields, inconsistency is commonplace. With the unrelenting growth of data volumes, the occurrence of various forms of inconsistency is dramatically increasing. Many different approaches to prevent, work around, explain, live with, tame, diminish, repair, resolve, or even take advantage of extant inconsistencies, have been proposed or are being used, both in theory and in practice. An obvious example is the ongoing debate around eventual consistency, as manifested in many studies and whitepapers, as well as industrial implementations of NewSQL, NoSQL and big data systems.

Topics

We are calling for journal contributions of original research, innovative ideas, work in progress, industrial experience, case studies or position statements. Also descriptions of prototype systems and implementations are welcome. Among many related issues, the topics of interest include the following subjects and areas where inconsistency may occur.

- Abductive, Deductive, Inductive Reasoning
- ACID
- Adaptive Logics
- Ambiguous, Imprecise, Incomplete, Vague Data
- Argumentation
- Availability and Dependability
- Belief Revision
- Big Data
- Cache Consistency
- Circumscription
- Cloud Computing
- Communication, Collaboration, Interaction

- Concurrent and Parallel Computation
- Counterfactual Reasoning
- Eventual Consistency
- Data Analysis
- Data Cleansing
- Data Mining
- Data Modeling and Knowledge Representation
- Data Quality
- Data Science
- Datalog
- Default Reasoning
- Degrees of Consistency and Inconsistency
- Description Logic
- Diagnosis
- Direct Logic
- Eventual Consistency
- Distribution and Replication
- Fault Tolerance and Recovery
- Forensics
- Hypothetical Reasoning
- Inconsistency Metrics
- Inconsistency Tolerance
- Information Retrieval
- Integrity Maintenance
- Legacy Data
- Linked Data
- Memory Consistency
- Modal Logic and (In)consistency
- Natural Language Understanding
- Nonmonotonic Reasoning
- NoSQL
- Null Values
- Open Data
- Ontology Alignment and Data Integration
- Paraconsistent Logics
- Planning

- Provenance of Data
- Quantum Information Theory and Processing
- Quasi-classical logic
- Remediating and Repairing
- Requirement Engineering
- Risk Management
- Rough, Noisy, Messy, Fuzzy Data
- Rules and Exceptions
- Security
- Semantic Web
- Semi- and Unstructured Data
- Streaming Data
- Temporal Logic and (In)consistency
- Truth Maintenance

Submissions

Please login at [TLDKS-COIN](http://confdriver.ifs.tuwien.ac.at/tldks) <http://confdriver.ifs.tuwien.ac.at/tldks> and submit an electronic copy of your work, by 12 December 2016. Submissions should be written in English and comply with the [Springer LNCS format](#). We suggest a paper length of about 20 pages; no strict limit is imposed. For any questions, contact *hdecker AT pms.ifi.lmu.de* or *reytita AT gmail.com*.

Reviewing and Publication

Submitted papers will be peer-reviewed, by members of the [COIN-16 program committee](#) or other distinguished colleagues with expertise in related fields. Authors will be notified of the review results by the 17th of February 2017. In case of acceptance, a final camera-ready version that would take reviewers' and editors' feedback into account is expected to be returned by the 3rd of April 2017.

Editors

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