



# SMDB 2019

*10th International Workshop on Self-Managing Database Systems*

<https://db.cs.pitt.edu/smdb2019>

**April 12, 2019**

**In conjunction with IEEE ICDE 2019**

**Macau SR, China**

## WORKSHOP INFORMATION

Autonomic, or self-managing, systems are a promising approach to achieve the goal of systems to be easier to use, simpler to maintain, and more robust in their operating characteristics. A system is considered to be autonomic if it is self-configuring, self-optimizing, self-healing, and/or self-protecting. The aim of the SMDB workshop is to provide a forum for researchers from both industry and academia to present and discuss ideas and experiences related to self-management and self-organization in all areas of Information Management in general. SMDB targets not only classical databases, but also the new generation of storage engines and in-memory databases. Beyond databases, SMDB aims to cover autonomic aspects of data-intensive systems represented by large-scale map-reduce and cloud environments, where much work on self-management is needed. Last, but not least, SMDB seeks to expand its horizons to include self-management of non-traditional, new areas such as social networks, distributed gaming, and peer-to-peer systems.

The series of SMDB workshops have always been held in conjunction with IEEE ICDE. Early workshops of the SMDB series focused on core topics in self-managing databases such as automated tuning and provisioning, automated problem diagnosis and recovery, and automated data protection and integration. Since 2010 the scope of the workshop has been broadened to include new topics in the core database area, such as multi-tenant databases and data management in cloud computing, but also drawing in other communities, such as, peer-to-peer computing and distributed systems. For the SMDB 2019 workshop, we want to continue to attract researchers from both the core database and other communities, such as the adaptive, data stream and event-based systems communities as enabling technologies for self-managing systems, and data-intensive internet-scale distributed systems that utilize the recent advances in AI, machine learning and data mining and analysis.

## TOPICS OF INTEREST

Topics of interest include, but are not limited to:

- Principles and architecture of autonomic data management systems
- Retro-fitting existing systems vs. designing for self management
- Self-\* capabilities in databases and storage systems

- Data management in cloud and multi-tenant databases
- Autonomic capabilities in database-as-a-service platforms
- Automated testing of data management systems
- Automated physical database design and adaptive query tuning
- Automated provisioning and integration
- Automatic enforcement of information quality
- Robust query processing techniques
- Self-managing data stream engines and adaptive event-based systems
- Self-managing distributed / decentralized / peer-to-peer information systems
- Self-management of internet-scale distributed systems
- Self-management for big data infrastructures
- Monitoring and diagnostics in data management systems
- Policy automation and visualization for datacenter administration
- User acceptance and trust of autonomic capabilities
- Evaluation criteria and benchmarks for self-managing systems
- Self-evaluation of data management services in the cloud
- Use cases and war stories on deploying autonomic capabilities

## SUBMISSION GUIDELINES

Authors are invited to submit original research contributions in English of up to 6 pages in the IEEE camera-ready format (templates are available at the ICDE 2019 submission guidelines page) to the submission site <https://cmt3.research.microsoft.com/SMDB2019>. Authors of accepted papers will be encouraged to submit an extended paper of up to 8 pages for final publication. All accepted papers will appear in the formal Proceedings of the Conference Workshops published by IEEE CS Press, and will be included in the IEEE digital library.

### Paper submission deadline:

December 3, 2018 5pm PST (abstract)

December 10, 2018 5pm PST (full paper)

Notification:

January 28, 2019

Camera-ready:

February 22, 2019

## WORKSHOP GENERAL CHAIR

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