8th International Workshop on Self-Managing Database Systems
(SMDB 2013)

April 8, 2013
Brisbane, Australia

in conjunction with the
2013 IEEE 29th International Conference on Data Engineering
(ICDE 2013)

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FOREWORD

Welcome to the 8th International Workshop on Self-Managing Database Systems (SMDB). Now in its 8th year, SMDB is largely recognized as one of the premier meetings that bring together industry and academia to advance research in the area of self-management and autonomic database systems.

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 database systems, but also the new generation of storage engines such as column stores, key-value stores, 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.

Research and development in database management systems has been instrumental in accomplishing some of the goals of autonomic systems by developing and incorporating strategies for physical database design, problem diagnosis, load balancing, self-tuning, and self-optimization. New challenges arising from multi-tenant databases, virtualization, cloud computing, software-as-a-service, and large data-intensive systems, such as social networks, distributed gaming, and peer-to-peer systems require new research.

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 2013 SMDB workshop, we want to continue to attract researchers from both the core database and other communities, such as the adaptive and event-based systems communities as enabling technologies for self-managing systems, and data-intensive internet-scale distributed systems.

The program committee accepted seven papers that cover a variety of topics, including design methods, identification of potential parallelism in sequential programs, programming languages, algorithms, and performance tuning. We hope that these proceedings serve as a valuable reference for researchers and developers.

Many people contributed to the success of SMDB. First of all, we would like to thank all authors for their contributions. We would like to express our gratitude to the program committee members who worked hard in reviewing papers and providing suggestions for improvements. Special thanks goes to our keynote speaker, Timos Sellis. We also thank the IEEE working group “Data Engineering Workgroup on Self-Managing Database Systems” for their support throughout the workshop organization. Finally, we would like to thank EMC/Greenplum and the University of Pittsburgh, for their sponsorship.

We wish you a great workshop and a fruitful and productive conference!

Alexandros Labrinidis and Florian Waas
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