

## Preface

This volume contains the proceedings of the LWDA 2019 conference held on September 30 - October 2, 2019, in Berlin, Germany.

The LWDA conference, which expands to “Lernen, Wissen, Daten, Analysen” (“Learning, Knowledge, Data, Analytics”), covers recent research in areas such as knowledge discovery, machine learning & data mining, knowledge management, database management & information systems, and information retrieval. The conference brings together the various special interest groups of the Gesellschaft für Informatik (German Computer Science Society) in these areas. It provides a joint forum for experienced and young researchers to share insights into recent trends, technologies and applications and to promote interaction across various research disciplines and communities.

LWDA 2019 comprised of the following workshops, each organized by the respective special interest group:

- Workshop on Data Management and Data Science (DB 2019)
- Workshop on Knowledge Discovery and Machine Learning (KDM 2019)
- Workshop on Information Retrieval (IR 2019)
- Workshop on Knowledge Management (WM 2019)
- Workshop on Business Intelligence (BI 2019)

The papers published in the LWDA 2019 proceedings have been selected by independent program committees from the respective workshops. The committees decided to accept 46 (full and short) research papers for inclusion in the proceedings. The LWDA program further consisted of invited keynotes, a joint research sessions, as well as individual research sessions and community meetings of each special interest group. Moreover, a joint poster session gave all presenters the opportunity to discuss their work. Our distinguished keynote speakers were Matthias Böhm (Graz University of Technology) and Isabel Valera (Max Planck Institute for Intelligent Systems).

The organizers have been glad to host the LWDA 2019 conference at Humboldt-Universität zu Berlin and we would like to thank the workshop chairs and their program committees for their hard work as well as the keynote speakers for their inspiring talks. Moreover, LWDA 2019 is grateful for support received from Volker Markl and the Berlin Big Data Center/Forum Digitale Technologien, Robert Jäschke and the L3S Research Center Hannover, Ulf Leser, and the EU-funded DESIR project.

September 11, 2019  
Berlin

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