# Preface

LWDA 2021 is a joint conference of six special interest groups of the German Computer Science Society (GI), addressing research in the areas of knowledge discovery and machine learning, information retrieval, database systems, and knowledge management. The German acronym LWDA stands for "Lernen, Wissen, Daten, Analysen" (Learning, Knowledge, Data, Analytics). Following the tradition of the last years, LWDA 2021 provides a joint forum for experienced and young researchers, to bring insights into recent trends, technologies, and applications and to promote interaction among the special interest groups. The following special interest groups participate at LWDA 2021:

– FGDB (Database Systems)
– FGKDML (Knowledge Discovery, Data Mining, and Machine Learning)
– FGBIA (Business Intelligence and Analytics)
– FGWM (Knowledge Management)
– FGIR (Information Retrieval)
– FGGVDB (Fundamentals of Databases)

LWDA 2021 was planned to be held at LMU Munich. Due to Covid19, the organizers decided to host the conference virtually in the interest of public health. The papers of the individual workshops have been peer-reviewed and selected by independent program committees from the respective domains. The committees decided to accept 27 (full and short) research papers for inclusion in the proceedings. The program consists of several joint sessions which include contributions of interest for all conference participants. In addition, there are parallel sessions for individual workshops focussing on more specific topics.

Recent trends in the corresponding research areas are highlighted by three distinguished keynote speakers:

– Michael Leyer, Rostock University
– Mykola Pechenizkiy, Technical University of Eindhoven
– Arjen de Vries, Radboud University

The organizers would like to thank the workshop chairs and their program committees for their excellent work as well as the keynote speakers for their contribution to the success of LWDA 2021. We hope that LWDA 2021 will be an inspiring event for all participants with lots of scientific exchange and discussions.

August 26, 2021
Michael Fromm
Sandra Obermeier
Thomas Seidl

# Organization

LWDA 2021 is hosted and organized jointly with the Munich Center for Machine Learning (MCML) and the research group "Database Systems and Data Mining" at Ludwig-Maximilians-Universität München (LMU Munich).

**LWDA 2021 General Chairs**
    Thomas Seidl, LMU Munich
    Sandra Obermeier, LMU Munich
    Michael Fromm, LMU Munich

**Workshop on Business Intelligence 2021 Chair**
    Henning Baars, Universität Stuttgart

**Workshop on Knowledge Discovery and Machine Learning 2021 Chairs**
    Emmanuel Müller, TU Dortmund University
    Martin Atzmüller, Universität Osnabrück

**Workshop on Knowledge Management 2021 Chairs**
    Christian Sauer, Universität Hildesheim
    Jakob Michael Schönborn, Universität Hildesheim

**Workshop on Information Retrieval 2021 Chairs**
    Klaus Berberich, HTW Saar
    Philipp Schaer, TH Köln