Preface

In 2019 XXI International Conference "Data Analytics and Management in Data Intensive Domains" (DAMDID/RCDL'2019) takes place on October 15-18 at the Kazan Federal University.

The "Data Analytics and Management in Data Intensive Domains" conference (DAMDID) is held as a multidisciplinary forum of researchers and practitioners from various domains of science and research, promoting cooperation and exchange of ideas in the area of data analysis and management in domains driven by data-intensive research. Approaches to data analysis and management being developed in specific data-intensive domains (DID) of X-informatics (such as X = astro, bio, chemo, geo, med, neuro, physics, chemistry, material science etc.), social sciences, as well as in various branches of informatics, industry, new technologies, finance and business contribute to the conference content.

Traditionally the program of the DAMDID/RCDL'2019 is oriented data science and data-intensive analytics as well as on data management topics. The program of this year includes keynotes and invited talks covering a broad range of conference topics.

Keynote by Bernhard Thalheim (full professor at Christian-Albrechts-University at Kiel) is devoted to models as one of the universal instruments of humans. Four specific utilisation scenarios for models are considered as well as methodologies for the development of proper and well-applicable models. Anton Osokin (leading research fellow and deputy head of the Centre of Deep Learning and Bayesian Methods at National Research University Higher School of Economics) gives a talk on ways for combining neural networks and powerful algorithms already developed in various domains. Experiences in creating B.Sc. and M.Sc. study programs in Data Science are considered in the keynote by Ivan Luković (full professor at the Faculty of Technical Sciences, University of Novi Sad). Invited talk by Mikhail Zymbler (head of Department for Data Mining and Virtualization at South Ural State University) considers an approach for the integration of data mining methods with open-source relational DBMS enhanced by small-scale modifications of the original codes to encapsulate parallelism.

Workshop on Data and Computation for Materials Science and Innovation (DACOMSIN) hosted by the National University of Science and Technology MISiS in Moscow constitutes the first day of the conference on October 15. The workshop is aimed to address communication gap across communities in the domains of materials data infrastructures, materials data analysis, and materials in silico experiment. The workshop brings together professionals from across research and innovation to share their experience and perspectives of using information technology and computer science for materials data management, analysis and simulation.

The conference Program Committee has reviewed 34 submissions for the conference, 18 submissions for DACOMSIN Workshop and 5 submissions for the Ph.D. workshop. For the conference, 17 submissions were accepted as full papers, 10 as short papers, whereas 7 submissions were rejected. For the DACOMSIN Workshop, 3

submissions were accepted as full papers, 3 submissions were accepted as short papers, 5 submissions were accepted as demos, 7 submissions were accepted as posters. For the Ph.D. workshop, 4 papers were accepted, and 1 was rejected.

According to the conference and workshops program, these 42 oral presentations are structured into 11 sessions including Advanced Data Analysis Methods, Digital Libraries and Data Infrastructures, Data Integration, Ontologies and Applications, Data and Knowledge Management, Data Analysis in Astronomy, Information Extraction from Text, Data Formats, Metadata and Ontologies in Support of Materials Research, Materials Databases, Materials Data Infrastructures and Data Services, IT Applications and IT Platforms for Materials Design and Simulation.

Though most of the presentations are dedicated to the results of researches conducted in the research organizations located on the territory of the Russian Federation including Chernogolovka, Dubna, Ekaterinburg, Kazan, Moscow, Novosibirsk, Obninsk, Tomsk, Samara, St.-Petersburg, the conference confirms features of internationalization witnessed by 7 talks prepared by the foreign researchers from such countries as Armenia (Yerevan), China (Shenzhen, Beijing), France (Clermont-Ferrand), Great Britain (Harwell), Japan (Tokyo), Switzerland (Lausanne).

The chairs of Program Committee expresses their gratitude to the PC members for carrying out the reviewing of the submissions and selection of the papers for presentation, to the authors of the submissions as well as to the host organizers from Kazan Federal University. The Program Committee of the conference appreciates the possibility of using the Conference Management Toolkit (CMT) sponsored by Microsoft Research, which provided great support during various phases of the paper submission and reviewing process.

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