Preface

In 2017 the International Conference "Data Analytics and Management in Data Intensive Domains" (DAMDID/RCDL'2017) takes place on October 9-13 in the Lomonosov Moscow State University at the department of Computational Mathematics and Cybernetics.

By tradition the "Data Analytics and Management in Data Intensive Domains" conference (DAMDID) is planned 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 are expected to contribute to the conference content.

The program of the DAMDID/RCDL'2017, as it was at the previous editions of these conferences, alongside with the traditional data management topics reflects a rapid move into the direction of data science and data intensive analytics. The program of this year includes carefully selected invited keynote talks related to the fast developed DID. The respective plenary sessions are also aimed at attracting an attention of researchers in the selected DID to the conference.

Preconference plenary session on October 9 includes two talks: the keynote talk by Stefano Ceri (professor of Database Systems at the Dipartimento di Elettronica, Informazione e Bioingegneria (DEIB) of Politecnico di Milano) and the invited talk by Zoltan Szallasi (MD, a senior research scientist, the Children's Hospital Informatics Program, Harvard Medical School). The session is devoted to the development of methods and techniques of getting genoms and diagnostics in various application domains (from healthcare to criminalistics). Stefano Ceri considers the implementation issues of the new generation DNA sequencing techniques in the European project GeCo applying Big Data technologies; in the Zoltan Szallasi talk an overview of approaches to the genomic based diagnostics in various application domains is given. In more details in the tutorial given by Zoltan Szallasi on October 10 the application of genomic diagnostics in the cancer immunotherapy is presented.

The problems of data deluge in astronomy and their solution approaches are considered in the keynote talk by Giuseppe Longo (professor of astrophysics at the University of Napoli Federico II). The last but not least keynote talk is given by Katrin Amunts, MD, full professor for Brain Research and director of the C. and O. Vogt Institute for Brain Research at the Heinrich-Heine University Duesseldorf, director of the Institute of Neuroscience and Medicine (INM-1), Research Centre Juelich. This talk is devoted to the large European project HBP (Human Brain Project) as the flagship – accelerating brain science discovery and collaboration.

The conference Program Committee has reviewed 75 submissions for the conference and 8 submissions for the PhD workshop. For the workshop 5 papers were accepted and 3 were rejected. For the conference 47 submissions were accepted as full papers, 12 as short papers, 2 as posters, 2 as demos, whereas 12 submissions were rejected. According to the conference program, these 59 oral presentations (of the full and short papers) are structured into 19 sessions including Data analysis projects in astronomy, Semantic Web techniques in DID, Special-purpose DID infrastructures (two sessions), Distributed computing, System efficiency evaluation, Data analysis projects in neuroscience, Specific data analysis techniques, Ontological models and applications (two sessions), Heterogeneous database integration, Text analysis in humanities (two sessions), Data analysis projects in various DID, Organization of experiments in data intensive research, Digital library projects, Knowledge representation and discovery, Approaches for problem solving in DID, Application of machine learning. 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 Kazan, Moscow, Novosibirsk, Obninsk, Omsk, Orel, Pereslavl-Zalessky, Saint Petersburg, Tomsk, Yaroslavl, Zvenigorod, the

conference acquires features of internationalization. This move is witnessed by 12 talks (four of them are invited) prepared by the notable foreign researchers from such countries as Armenia (Yerevan), Bahrain (Manama), Belarus (Minsk), Bulgaria (Sofia), Germany (Dusseldorf, Kiel), Great Britain (Harvel), Greece (Thessaloniki), Italy (Milano, Napoli), USA (Garvard).

Co-chairs of the Program committee   **Co-chair of the Organizing committee**

Leonid A. Kalinichenko   Victor N. Zakharov
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