## **Preface**

RCDL-2013 is the fifteenth conference in the series of annual national scientific conferences "Digital Libraries: Advanced Methods and Technologies, Digital Collections". Eight years after, the conference once again takes place in Yaroslavl, at P. G. Demidov Yaroslavl State University.

Digital Libraries (DL) form a field of research and development aimed at advances of theory and practice of processing, distribution, storage, search and analysis of information resources of different kinds. New conceptual models, advanced infrastructures, software tools and standards are required for extraction, organization and integration of such multi-content and multi-structured resources. Such infrastructures are to be based on recent achievements in the fields of cloud computing, Semantic Web, data intensive sciences, Big Data, system interoperability, scalable data processing, integration of data with fast growing diversity and volume. Innovative methods and technologies which support extracting the information from diverse data, description of their metadata and sharable usage of information with rich semantics, are getting the key role in the DL community. The program of the conference was formed with respect to these trends.

The Conference is used to attend by employees of research institutes, university teachers and graduate students, experts in libraries and the IT industry specialists. Among the participants of RCDL-2013 are the representatives of different regions of Russia and Ukraine as well as USA and United Kingdom.

The Big Data processing, which is one of the most urgent directions of IT worldwide, takes an important place in the RCDL-2013 program. The program includes three tracks devoted to the Big Data. All the tracks are composed of invited talks.

The topic of the first track is Big Data platforms. Professionals from Oracle and Microsoft consider in their talks up-to-time hardware and software solutions intended for Big Data support.

The second track is devoted to data analysis methods. The talks considering the state of the art and perspectives of machine learning methods, geo-modeling and geo-analysis problems, text analysis over Big Data are presented.

The third track concerns data management and problem solving in data intensive sciences. An experience of problem solving in the field of quantitative spectroscopy as well as data management and analysis in astrophysics research are presented.

Alongside with the invited talks the program of the RCDL-2013 includes 19 regular, 19 short and 7 poster talks organized in 13 sessions. The talks are devoted to Semantic Web, ontologies and thesauri; user modeling, personalization and tools for development of digital libraries; scientometrics; information extraction from text and text analysis; methods, models and tools for the support of scientific research; data models and integration of information resources; scientific journal management systems; applications of machine learning methods; semantic digital libraries; digital collections.

Within the scope of RCDL-2013 the young scientists' workshop "Dissertation Research on Information Technologies Related to Digital Libraries" is organized. The aim of the workshop is to give PhD students the possibility to discuss their results and research ideas, their strengths and weaknesses with more experienced colleagues; to consider the ways to move on; to come into contacts for scientific cooperation; to improve presentation skills.

Chairs of RCDL-2013 Organizing and Program Committees thank all authors who have submitted their papers for the conference, PC members for their great effort in reviewing and selecting papers, as well as Russian Foundation for Basic Research and the Institute of Informatics Problems of the Russian Academy of Sciences for support of the conference. PC Chairs of the conference express their gratitude to Dr. Mikhail Kogalovsky for his active participation in the activities of the Program Committee and in the

conference program preparation. RCDL Steering Committee appreciates the work of the staff of the P. G. Demidov Yaroslavl State University for the conference organization.

Organizing Committee Chair Alexander Rusakov

Program Committee Co-chairs Vladimir Smirnov, Sergey Stupnikov

RCDL Steering Committee Chair Leonid Kalinichenko