

## DAMDID/RCDL'2020 Programme

**Tuesday October 13, 2020**

October 13		DAMDID Conference opening
11:00	11:10	VSU speaker

October 13		Keynote
11:10	11:50	<b>Towards Green Data Management Systems</b> Ladjel Bellatreche

October 13		DAMDID Session 1: Data Integration, Conceptual Models and Ontologies
12:00	12:20	<b>Intelligent Systems Multidimensional Architecture Conceptual Modeling</b> Konstantin Kostenko
12:20	12:40	<b>Managing data-intensive research problem-solving lifecycle</b> Nikolay A. Skvortsov, Sergey A. Stupnikov
12:40	13:00	<b>Algebraic Models for Big Data and Knowledge Management</b> Sergey D. Makhortov
13:00	13:20	<b>A Cloud-Native Serverless Approach for Implementation of Batch Extract-Load Processes in Data Lakes</b> Anton Bryzgalov, Sergey Stupnikov
13:20	13:40	<b>Denotative and Significant Semantics Analysis and Control Methods in Diagrams</b> Nikolay N. Voit, Semen Bochkov
13:40	13:50	<b>An Ontology Approach to Data Integration</b> Manuk G. Manukyan

October 13		DAMDID Session 2: Data Management in Semantic Web
14:30	14:50	<b>Pragmatic interoperability and translation of industrial engineering problems into modelling and simulation solutions</b> Martin T. Horsch, Silvia Chiacchiera, Michael Seaton, Ilian Todorov, Björn Schembera, Peter Klein, Natalia Konchakova
14:50	15:10	<b>Analysis of the Semantic Distance of Words in the RuWordNet Thesaurus</b> Liliya Usmanova, Irina Erofeeva, Valery Solovyev, Vladimir Bochkarev
15:10	15:30	<b>Machine learning and text analysis in the tasks of knowledge graphs refinement and enrichment</b> Victor Telnov, Yuri Korovin
15:30	15:50	<b>A Transformation of the RDF Mapping Language into a High-Level Data Analysis Language for Execution in a Distributed Computing Environment</b> Wenfei Tang, Sergey A. Stupnikov

October 13		DAMDID Session 3: PhD Workshop. Data Integration and Ontologies
16:20	16:40	<b>Взаимное отображение графовой и реляционной моделей данных для мультимодельных баз данных / Mutual mapping of graph and relational data models for multi-model databases</b> Arkadii Osheev
16:40	17:00	<b>Towards ontology-based cyber threat response</b> Nikolay Kalinin
17:00	17:20	<b>Using the Object Model with Integrated Query Language for Data Integration / Применение объектной модели с интегрированным языком запросов для интеграции данных</b> Vladimir Klyuchikov

## Wednesday October 14, 2020

October 14	Invited talk
11:00 11:30	<b>Huawei GaussDB A and Moscow Database Intelligence and Optimization Technology Center</b> Pavel Velikhov

October 14	DAMDID Session 4: Advanced Data Analysis Methods
11:40 12:00	<b>User activity anomaly detection by mouse movements in web surveys</b> Alberto Mastrotto, Nelson Anderson, Dev Sharma, Ergeta Muca, Kristina Liapchin, Luis Losada, Mayur Bansal, Roman Samarev
12:00 12:20	<b>Comparison of Two Approaches to Recommender Systems with Anonymous Purchase Data</b> Oleg V. Senko, Yuri Zhuravlev, Alexander Dokukin, Dmitry Stefanovskiy, Ivan Saenko, Nikolay Korolev
12:40 13:00	<b>An Information System for Inorganic Substances Physical Properties Prediction Based on Machine Learning Methods</b> Nadezhda N. Kiselyova, Victor A. Dudarev
13:00 13:10	<b>Расширяемая Система для Многокритериального Поиска Выбросов в Данных / Extensible System for Multi-Criteria Data Outlier Search</b> Vladislav Dineev, Victor A. Dudarev

October 14	DAMDID Session 5: Digital Platforms and Information Systems
14:00 14:20	<b>Formation of the Digital Platform for Precision Farming with Mathematical Modeling</b> Alexander N. Raikov, Victor Medennikov
14:20 14:30	<b>Open Science Portal based on Knowledge Graph</b> Vasily E. Bunakov
14:30 14:40	<b>JOIN<sup>2</sup> Software Platform for the JINR Open Access Institutional Repository</b> Irina Filozova, Tatiana Zaikina, Galina Shestakova, Roman Semenov, Martin Köhler, Alexander Wagner, Laura Baracchi
14:40 14:50	<b>Innovative approach to updating the digital platform ecosystem</b> Aleksandr P. Shabanov, Alexander Zatsarinnyy
14:50 15:00	<b>Big Data Environmental Monitoring System in Recreational Areas</b> Sagit Valeev, Natalya Kondratyeva
15:00 15:10	<b>New Approaches for Delivery of Data and Information Products to Consumers and External Systems in the Field of Hydrometeorology</b> Evgenii D. Viazilov, Denis A. Melnikov, Alexander S. Mikheev

October 14	DAMDID Session 6: PhD Workshop. Machine Learning and Signal Data
15:30 15:50	<b>Data Augmentation for Domain-Adversarial Training in EEG-based Emotion Recognition</b> Ekaterina I. Lebedeva
15:50 16:10	<b>One- and unidirectional two-dimensional signal imitation in complex basis</b> Ivan I. Deykin
16:10 16:30	<b>Analysis of Gaze Trajectories in Natural Reading with Hidden Markov Models</b> Maksim Volkovich

## Thursday October 15, 2020

October 15		Invited talk
11:00	11:30	<b>Application of Artificial Intelligence and Data Analysis Methods in Healthcare</b> Alexey Molodchenkov
October 15		DAMDID Session 7: Data Analysis in Medicine
11:40	12:00	<b>EMG and EEG pattern analysis for monitoring human cognitive activity during emotional stimulation</b> Natalya I. Bodrina, Konstantin Sidorov, Natalya Filatova
12:00	12:20	<b>Finding the TMS-targeted group of fibers reconstructed from diffusion MRI data.</b> Sofya Kulikova, Aleksey Buzmakov
12:20	12:30	<b>Building models for predicting mortality after myocardial infarction in conditions of unbalanced classes, including the influence of weather conditions</b> Mariya A. Firiyulina, Irina Kashirina
12:30	12:40	<b>Renal impairment risk factors in patients with type 2 diabetes</b> Darya A. Shipilova, Oleg A. Nagibovich
12:40	12:50	<b>Методы и средства анализа сигналов головного мозга человека на данных функциональной магнитно-резонансной томографии / Methods and tools for analyzing human brain signals based on functional magnetic resonance imaging data</b> Dmitriy Kovalev, Egor Tirikov, Dmitrii Sergeev, Natalya V.Ponomareva
12:50	13:00	<b>Application association rule mining in medical-biological investigations: a survey</b> Xenia A. Naidenova, Alexander Yakovlev
13:00	13:10	<b>The use of machine learning methods to the automated atherosclerosis diagnostic and treatment system development</b> Maria Demchenko, Irina Kashirina
13:10	13:20	<b>Assessment of features of cognitive functions and the social sphere of children and adolescents using data analysis methods</b> Alexey I. Molodchenkov
October 15		DAMDID Session 8: Data Analysis in Astronomy
13:50	14:10	<b>Data for binary stars from Gaia DR2</b> Dana Kovaleva, Oleg Yu. Malkov, Sergei Sapozhnikov, Dmitry Chulkov, Nikolay A. Skvortsov
14:10	14:30	<b>Classification problem and parameter estimating of gamma-ray bursts</b> Pavel Minaev, Alexey S. Pozanenko
14:30	14:50	<b>Data Quality Assessments in Large Spectral Data Collections</b> Alexander Z. Fazliev
14:50	15:10	<b>Experimental study of high-dimensional simulation processes as a basis for the development of a new spectral theory</b> Elena V. Smirnova, Vladimir Syuzev, Roman Samarev, Ivan Deykin, Andrey Proletarsky
15:10	15:30	<b>Databases of Gamma-Ray Bursts' Optical Observations</b> Alina Volnova, Alexey S. Pozanenko, Elena Mazaeva, Sergey Belkin, Pavel Minaev
15:30	15:40	<b>Variable star classification with help of Machine Learning algorithms</b> Kirill E. Naydenkin, Maria Pruzhinskaya, Konstantin Malanchev
October 15		DAMDID Session 9: PhD Workshop. Machine Learning Applications
16:00	16:20	<b>Применение методов машинного обучения для кросс-идентификации астрономических объектов / Application of machine learning methods for cross-identification of astronomical objects</b> Alexandra A. Kulishova
16:20	16:40	<b>Machine learning models in predicting hepatitis survival using clinical data</b> Kouame A. Brou
16:40	17:00	<b>The algorithm of automatic accentuation with respect to the speaking norm of a given author</b> Anna Mosolova
October 15		DAMDID/RCDL Coordinating Committee Meeting
17:10	18:00	

## **Friday October 16, 2020**

<b>October 16</b>		<b>Keynote</b>
<b>11:00</b>	<b>11:40</b>	<b>Conceptual Modeling and Life Engineering: Facing Data Intensive Domains Under a Common Perspective</b> Oscar Pastor

<b>October 16</b>		<b>DAMDID Session 10: Information Extraction from Text</b>
<b>11:50</b>	<b>12:10</b>	<b>Exploring Book Themes in the Russian Age Rating System: a Topic Modeling Approach</b> Anna Glazkova
<b>12:10</b>	<b>12:30</b>	<b>Part of speech and gramset tagging algorithms for unknown words based on morphological dictionaries of the Veps and Karelian languages</b> Andrew Krizhanovsky
<b>12:30</b>	<b>12:50</b>	<b>Extrinsic evaluation of cross-lingual embeddings on the patent classification task</b> Anastasiia Ryzhova, Ilya V. Sochenkov
<b>12:50</b>	<b>13:10</b>	<b>Automated Generation of a Book of Abstracts for Conferences that use Indico Platform</b> Anna Ilina, Igor Pelevanyuk
<b>13:10</b>	<b>13:20</b>	<b>Text Attribution in Case of Sampling Imbalance by the Method of Constructing an Ensemble of Classifiers Based on Decision Trees</b> Alexander Rogov, Roman Abramov, Alexander Lebedev, Kirill Kulakov, Nikolai Moskin

<b>October 16</b>		<b>DAMDID Session 11: Information Extraction from Text</b>
<b>14:00</b>	<b>14:20</b>	<b>An approach to extracting ontology concepts from requirements</b> Murtazina Marina, Tatiana Avdeenko
<b>14:20</b>	<b>14:40</b>	<b>Selection of Optimal Parameters in the Fast K-Word Proximity Search Based on Multi-component Key Indexes</b> Alexander B. Veretennikov
<b>14:40</b>	<b>15:00</b>	<b>Data driven detection of technological trajectories</b> Sergey S. Volkov, Dmitriy Deviatkin, Ilya Tikhomirov, Ilya V. Sochenkov
<b>15:00</b>	<b>15:20</b>	<b>Comparison of cross-lingual similar documents retrieval methods</b> Denis Zubarev, Ilya V. Sochenkov
<b>15:20</b>	<b>15:30</b>	<b>On developing of the FrameNet-like resource for Tatar</b> Alexander V. Kirilovich, Olga A. Nevzorova, Ayrat Gatiatullin
<b>15:30</b>	<b>15:40</b>	<b>Navigation Tool for the Linguistic Linked Open Data Cloud in Russian and the Languages of Russia</b> Alexander V. Kirilovich, Konstantin Nikolaev
<b>15:40</b>	<b>16:00</b>	<b>The study of the sequential inclusion of paths in the analysis of program code for the task of selecting input test data</b> Konstantin E. Serdyukov
<b>16:00</b>	<b>16:20</b>	<b>The algorithm of automatic accentuation with respect to the speaking norm of a given author</b> Anna Mosolova

<b>October 16</b>		<b>DAMDID Conference closing</b>
<b>16:30</b>	<b>16:40</b>	