



## INTERNATIONAL CODATA 2017 CONFERENCE

### “GLOBAL CHALLENGES and DATA-DRIVEN SCIENCE”

8-13 OCTOBER 2017  
SAINT PETERSBURG, RUSSIA

## SCIENTIFIC PROGRAM

### MONDAY, 09 October 2017

#### **Opening Ceremony** 08:30–09:00

Welcoming Notes

Vladimir Vasilyev (ITMO University)

Andrey Maksimov (Committee of science government of St. Petersburg)

Geoffrey Boulton (CODATA)

Heide Hackmann (ICSU)

Alevtina Chernikova (NUST MISiS)

Sofiysky Hall (3 floor)

#### **Key-note Speakers**

Fred Roberts (CCICADA) 9:00–09:45

Pavel Kabat (IIASA) 09:45–10:30

Sofiysky Hall (3 floor)

#### **Coffee break** 10:30 – 11:00

Serafimovsky Hall (3 floor)

#### **Three parallel oral sessions** 11:00 – 12:30

### **GEOLOGICAL DATA-DRIVEN SCIENCE OF THE ARCTIC (ID 15)**

Mikhailovsky Hall (1 floor)

Moderator: Oleg Petrov (VSEGEI)

11:00-11:15	<b>Oleg Petrov (ID 36)</b> Russian Geological Research Institute (VSEGEI) TECTONOSTRATIGRAPHIC ATLAS OF THE ARCTIC (EASTERN RUSSIA AND ADJACENT AREAS)
11:15-11:30	<b>Alena Rybkina (ID 154)</b> Geophysical Center of RAS ARCTIC TERRITORY – DATA AND MODELING
11:30 – 11:45	<b>Valery Vernikovskiy (ID 220)</b> Trofimuk Institute of Petroleum Geology and Geophysics of Siberian Branch of Russian Academy of Sciences (IPGG SB RAS) PROBLEMS OF SCIENTIFIC ANALYSIS AND INTERPRETATION OF GEOLOGICAL AND GEOPHYSICAL DATA ON THE EXAMPLE OF THE ARCTIC CONTINENTAL SHELF
11:45 – 12:00	<b>Leopold Lobkovsky (ID 235)</b> P.P.Shirshov Institute of Oceanology

	Geodynamical model of the Arctic evolution in Mesozoic and Cenozoic
12:00 – 12:15	<b>Geoffrey Boulton (ID TBA)</b> CODATA PRIORITIES FOR UNDERSTANDING ARCTIC OCEAN/ATMOSPHERE/CRYOSPHERE SYSTEMS

### **DATA POLICY, FAIR DATA, LEGAL ISSUES AND THE LIMITS OF OPEN DATA (ID 37)**

Vladimirsky Hall (3 floor)

Moderator: Paul Uhler  
(Consultant on information policy and management)

14:00 – 14:15	<b>Paul Uhler (ID 193)</b> Consultant on information policy and management A BRIEF HISTORY OF RESEARCH DATA POLICY
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### **DATA MINING AIMED AT SEISMIC HAZARD AND RISK ASSESSMENT AND EARTHQUAKE PREDICTION (ID 16)**

Sofiysky Hall (3 floor)

Moderator: Alexandre Soloviev (IEPT RAS)

11:00-11:15	<b>Alexey Gvishiani (ID 122)</b> Geophysical Center of RAS BACKGROUND SEISMICITY DATA PROCESSING AIMED AT STRONG EARTHQUAKE-PRONE AREAS DETERMINATION
11:15-11:30	<b>Roman Krasnoperov (ID 127)</b> Geophysical Center of the Russian Academy of Sciences (GC RAS, Russia) ALGORITHMIC SYSTEM FCAZ AND STRONG EARTHQUAKE-PRONE AREAS IN THE RUSSIAN FAR EAST
11:30 – 11:45	<b>Petr Shebalin (ID 46)</b> Institute of Earthquake Prediction Theory and Mathematical Geophysics ACCESSING SEISMIC HAZARD AFTER LARGE EARTHQUAKES
11:45 – 12:00	<b>Vladimir Kossobokov (ID 34)</b> IEPT RAS SEISMIC HAZARD ASSESSMENT AND EARTHQUAKE PREDICTION IN A BIG DATA WORLD

**Lunch** 12:30 – 14:00

Georgievsky Hall (0 floor)

**Four parallel oral sessions** 14:00 – 15:30

### **MODERN STRATEGIES FOR DATA COLLECTION AND ANALYSIS FOR THE BETTER UNDERSTANDING OF THE EARTH SYSTEM (ID 10)**

Mikhailovsky Hall (1 floor)

Moderator: Anatoly Soloviev (GC RAS)

14:00 – 14:15	<b>Masahito Nosé (ID 186)</b> Kyoto University
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	INFORMATION ABOUT GEOMAGNETIC DISTURBANCES DERIVED FROM GLOBAL GEOMAGNETIC OBSERVATION NETWORK: AE INDEX, DST INDEX, AND WP INDEX
14:15 – 14:30	<b>Pierre J Cilliers (ID 77)</b> South African National Space Agency THE MULTIPLE USES OF ARCHIVED DATA FROM THE GLOBAL NAVIGATIONAL SATELLITE SYSTEM REFERENCE RECEIVERS.
14:30 – 14:45	<b>Paul Lotoaniu (ID 108)</b> University of Colorado THE NOAA GOES-16 SATELLITE SPACE WEATHER DATA AND PRODUCTS
14:45 – 15:00	<b>Christopher Pankratz (ID 211)</b> University of Colorado TOOLS FOR AD-HOC ACCESS, VISUALIZATION AND ANALYSIS OF SPACE MISSION TELEMETRY AND SCIENCE DATA

### SMART CITIES (ID 28)

Aleksandrovsky Hall (2 floor)

Moderator: Jane Hunter (The University of Queensland)

14:00 – 14:15	<b>Wilhelmina Nekoto (ID 192)</b> Kombat Village, Grove Mining Namibia Pty Ltd A DATA DRIVEN APPROACH TO TRANSFORM THE RURAL TOWN OF KOMBAT INTO A SMART CITY
14:15 – 14:30	<b>Peter L Stanchev (ID 35)</b> Kettering University SMART PARKING

### REGIONAL COLLABORATION FOR DATA SCIENCE (ID 43)

Aleksandrovsky Hall (2 floor)

Moderator: Takashi Gojobori  
(King Abdullah University of Science and Technology)

11:00-11:15	<b>Takashi Gojobori (ID 217)</b> King Abdullah University of Science and Technology CHALLENGES IN REGIONAL COLLABORATIONS FOR DATA SCIENCE - INSIGHTS FROM THE BIOLOGICAL METAGENOMIC PROJECT
11:15 – 11:30	<b>Katsuhiko Mineta (ID TBA)</b> King Abdullah University of Science and Technology TBA

### DATA MINING AIMED AT SEISMIC HAZARD AND RISK ASSESSMENT AND EARTHQUAKE PREDICTION (ID 16)

Sofiysky Hall (3 floor)

Moderator: Alexandre Soloviev (IEPT RAS)

14:00 – 14:15	<b>Alexandre Soloviev (ID 33)</b> Geophysical Center, Russian Academy of Sciences MODELING THE BLOCK STRUCTURE DYNAMICS AND SEISMICITY IN THE CAUCASIAN REGION
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14:15 – 14:30	<b>Alexander Gorshkov (ID 29)</b> IEPT RAS POSSIBLE LOCATIONS OF M7+ EARTHQUAKES IN GREECE DEFINED BY PATTERN RECOGNITION
14:30 – 14:45	<b>Ivan Belov (ID 125)</b> Geophysical Center of the Russian Academy of Sciences (GC RAS, Russia) ALGORITHM BARRIER WITH SINGLE LEARNING CLASS FOR STRONG EARTHQUAKE-PRONE AREAS RECOGNITION
14:45 – 15:00	<b>Jon Karapetyan (ID 153)</b> Institute of Geophysics and Engineering Seismology after A. Nazarov SEISMIC SAFETY AND APPROACHES FOR ITS IMPLEMENTATION

**Coffee break** 15:30 – 16:00

Serafimovsky Hall (3 floor)/Andreevsky Hall (1 floor)

**Four parallel oral sessions** 16:00 – 17:30

**MODERN STRATEGIES FOR DATA COLLECTION AND ANALYSIS FOR THE  
BETTER UNDERSTANDING OF THE EARTH SYSTEM (ID 10)**

Mikhailovsky Hall (1 floor)

Moderator: Anatoly Soloviev (GC RAS)

16:00 – 16:15	<b>Anatoly Soloviev (ID 231)</b> Geophysical Center RAS RECENT ACHIEVEMENTS IN GEOMAGNETIC DATA ANALYSIS FOR ADVANCED MONITORING OF THE EARTH'S MAGNETIC FIELD
16:15 – 16:30	<b>Valery Petrov (ID 84)</b> IZMIRAN PORTABLE SYSTEM FOR MAGNETIC SENSORS CALIBRATION
16:30 – 16:45	<b>Alexander Tatarinov (ID 47)</b> Geological Institute SB RUS NEW ACHIEVEMENTS IN FUNDAMENTAL AND APPLIED RESEARCHES OF THE “COLD” EARTH DEGASSING
16:45 – 17:00	<b>Dmitri Kondrashov (ID 216)</b> University of California, Los Angeles DATA-DRIVEN CLIMATE MODELING AND PREDICTION

**HISTORICAL DISASTER DATA MANAGEMENT AND DATA PUBLISHING (ID 12)**

Aleksandrovsky Hall (2 floor)

Moderator: Guoqing Li (RADI)

16:00 – 16:15	<b>Guoqing Li (ID 97)</b> RADI CODATA SPECIAL ISSUE ON HISTORICAL DATASETS FOR DISASTER MITIGATION AND RESEARCH
16:15 – 16:30	<b>Nina Frolova (ID 30)</b>

	Russia Academy of Sciences and Extreme Situation Research Center <b>KNOWLEDGE BASE ABOUT PAST EARTHQUAKES CONSEQUENCES AS A TOOL TO INCREASE THE RELIABILITY OF NEAR REAL TIME LOSS ESTIMATION</b>
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**DATA MINING AIMED AT SEISMIC HAZARD AND RISK ASSESSMENT AND EARTHQUAKE PREDICTION (ID 16)**

Sofiysky Hall (3 floor)

Moderator: Alexandre Soloviev (IEPT RAS)

16:00 – 16:15	<b>Alik Ismail-Zadeh (ID 31)</b> Karlsruhe Institute of Technology SEISMIC HAZARD MODELING USING INSTRUMENTALLY RECORDED, HISTORICAL AND SIMULATED DATA
16:15 – 16:30	<b>Waleed Eidolimat (ID 24)</b> Jordan Seismological Observatory SITE EFFECT IN ARCHAEOLOGICAL CITY JRASH IN JORDAN
16:30 – 16:45	<b>Alexander Gorshkov (ID 28)</b> IEPT RAS SEISMOGENIC NODES (M6+) RECOGNIZED IN THE ALTAI-SAYAN-BAIKAL LAKE REGION

**INSTITUTIONAL RDM SERVICES (ID 32)**

Vladimirsky Hall (3 floor)

Moderators: Devika P Madalli (Indian Statistical Institute)

16:00 – 16:15	<b>Liz Lyon (ID 96)</b> University of Pittsburgh EXPLORING NEXT GENERATION RESEARCH DATA SERVICES AND DATA ROLES BEYOND 2017
16:15 – 16:30	<b>Michael Witt (ID 161)</b> INSTITUTIONAL RESEARCH DATA MANAGEMENT SERVICES AT PURDUE UNIVERSITY
16:30 – 16:45	<b>Jan Brase (ID 92)</b> SUB Goettingen THE GOETTINGEN ERESEARCH ALLIANCE - JOINT DATA SERVICES ON CAMPUS

**TUESDAY. 10 October 2017**

**Key-note Speakers:**

Sofiysky Hall (3 floor)

Barbara Ryan (GEO) 9:00–09:45  
 Vladimir Mau (RANEP) 09:45–10:30

**Coffee break** 10:30 – 11:00

Serafimovsky Hall (3 floor)

**Four parallel oral sessions** 11:00 – 12:30

**DATA AND DISASTER RISK RESEARCH (ID 39)**

Aleksandrovsky Hall (2 floor)

Moderator: Virginia Murray (Public Health England)

11:00-11:15	<b>Franz-Josef Behr (ID 177)</b> Stuttgart University of Applied Science RAPID JUST-IN-TIME AND TASK-ADEQUATE GEODATA PROVISION FOR DISASTER MANAGEMENT
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## EARTH OBSERVING SYSTEMS AND DATA FOR GLOBAL ENERGY, OIL AND GAS EXTRACTION AND CARBON DIOXIDE STORAGE (ID 11)

Mikhailovsky Hall (1 floor)

Moderator: Nebojsa Nakicenovic (IIASA)

11:00-11:15	<b>Oleg Prischepa (ID 66)</b> All-Russia Petroleum Research Exploration Institute DIGITAL GEOLOGICAL EXPLORATION - RELOADING IN GEOLOGY OF THE 21 CENTURY
11:15-11:30	<b>Nebojsa Nakicenovic (ID 116)</b> International Institute for Applied Systems Analysis (IIASA) DRILLING PERSPECTIVES IN LOW CARBON ENERGY SCENARIOS
11:30 – 11:45	<b>Anastasia Odintsova (ID 65)</b> Geophysical Center of RAS THE WORLD'S LARGEST OIL AND GAS INDUSTRIALLY EXPLORED DEPOSITS: ROSA DATABASE AND GIS PROJECT
11:45 – 12:00	<b>Alexey Gvishiani (ID 230)</b> Geophysical Center of RAS GEOMAGNETIC SURVEY FOR DIRECTIONAL DRILLING OF DEEP WELLS IN THE ARCTIC REGION

## A WORLD TOUR OF PROGRESS TOWARD OPEN DATA AND OPEN SCIENCE (ID 34)

Sofiysky Hall (3 floor)

Moderator: Bonnie Cooper Carroll (CODATA)

11:00-11:05	<b>Bonnie Carrol</b> CODATA WELCOME AND INTRODUCTION
11:05-11:20	<b>Geoffrey Boulton</b> CODATA INTRODUCTION AND OVERVIEW OF THE INTERNATIONAL DATA ACCORD AND FAIR PRINCIPLES
11:20-12:10	PANEL. ABOUT 10MINUTES FOR EACH COUNTRY HIGHLIGHTS <b>Geoffrey Boulton</b> (UK Overview) <b>Paul Loughton &amp; Refiloe Mabaso</b> (South Africa) <b>Yasuhiro Murayama</b> (Japan) <b>Niv Ahituv</b> (Israel) <b>Jane Hunter</b> (Australia) <b>Joseph Muliari Wafula</b> (Kenya)
12:10-12:30	ROUNDTABLE DISCUSSION OF COMMON THEMES; INTERESTING CHALLENGES AND BEST PRACTICES/POLICIES



## GREAT EARTHQUAKES AND TSUNAMIS IN SUBDUCTION ZONES (ID 19)

Vladimirsky Hall (3 floor)

Moderator: Leopold Lobkovsky (P.P. Shirshov Institute of Oceanology)

11:00-11:15	<b>Leopold Lobkovsky (ID 58)</b> P.P. Shirshov Institute of Oceanology KEYBOARD MODEL OF SUBDUCTION DEFORMATION CYCLES FOR GREAT EARTHQUAKES
11:15-11:30	<b>Irina Vladimirova (ID 59)</b> Geophysical Survey of the Russian Academy of Sciences ANALYSIS OF THE TECTONIC DEFORMATIONS IN THE KURIL ARC AFTER THE 2006-2007 SIMUSHIR EARTHQUAKES BASED ON SATELLITE GEODETIC DATA
11:45 – 12:00	<b>Raissa Mazova (ID 133)</b> P.P.Shirsov Institute of Oceanology RAS NUMERICAL MODELING OF THE STRONGEST TSUNAMIS CAUSED BY GREAT EARTHQUAKES IN SUBDUCTION ZONES FOR THE EXAMPLES OF 21ST CENTURY CATASTROPHES

**Lunch** 12:30 – 14:00

Georgievsky Hall (0 floor)

**Four parallel oral sessions** 14:00 – 15:30

## A WORLD TOUR OF PROGRESS TOWARD OPEN DATA AND OPEN SCIENCE (ID 34)

Sofiysky Hall (3 floor)

Moderator: Bonnie Cooper Carroll (CODATA)

14:00 – 14:05	<b>Bonnie Carroll</b> CODATA INTRODUCTION AND SUMMARY OF FIRST SESSION
14:05 – 14:15	<b>Paul Uhlir</b> Consultant on information policy and management INTRODUCTION AND OVERVIEW OF THE OPEN RESEARCH ACTIVITIES OF THE CODATA POLICY WG
14:10 – 15:05	PANEL. ABOUT 10MINUTES FOR EACH COUNTRY HIGHLIGHTS <b>Bonnie Carroll</b> (US Overview) <b>Jianhu Li</b> (China) <b>Ernie Boyko and John Broome</b> (Canada) <b>Pekka Orponen</b> (Finland)
15:05 – 15:30	ROUNDTABLE DISCUSSION OF COMMON THEMES; INTERESTING CHALLENGES AND BEST PRACTICES/POLICIES CONCLUSIONS

## GREAT EARTHQUAKES AND TSUNAMIS IN SUBDUCTION ZONES (ID 19)

Vladimirsky Hall (3 floor)

Moderator: Leopold Lobkovsky (P.P. Shirshov Institute of Oceanology)

14:00 – 14:15	<b>Evgueni Kulikov (ID 64)</b> Shirshov Institute of Oceanology RAS TSUNAMI IN 21ST CENTURY
14:15 – 14:30	<b>Grigory Steblov (ID 61)</b> Schmidt Institute of Physics of the Earth of the Russian Academy of Sciences REVEAL OF THE PRE-SEISMIC PHASE OF THE SEISMIC CYCLE FROM SPACE GEODETIC OBSERVATIONS OVER THE AREA OF TOHOKU EARTHQUAKE 2011
14:30 – 14:45	<b>Igor Garagash (ID 62)</b> Institute of Earth Physics GEOMECHANICAL MODEL OF THE PREPARATION AND OCCURENCE OF THE GREAT EARTHQUAKES IN SUBDUCTION ZONES FOR THE EXAMPLE OF THE CATASTROPHIC SEISMIC EVENT TOHOKU 2011
14:45 – 15:00	<b>Boris Dzeboev (ID 126)</b> Geophysical Center of RAS DISCRETE MATHEMATICAL ANALYSIS AND ITS APPLICATION FOR MONITORING OF SEISMIC ACTIVITY

**Coffee break** 15:30 – 16:00

Serafimovsky Hall (3 floor)/Andreevsky Hall (1 floor)

**PANEL DISCUSSION** 16:00 – 17:30

Sofiysky Hall (3 floor)

Pavel Kabat (IIASA)  
Geoffrey Boulton (CODATA)  
Heide Hackmann (ICSU)  
Barbara Ryan (GEO)  
Alexey Gvishiani (GC RAS)  
Vladimir Mau (RANEPa)

**WEDNESDAY. 11 October 2017**

**Key-note Speakers:**

Sofiysky Hall (3 floor)

Geoffrey Boulton (CODATA) 9:00–09:45  
Catriona MacCallum (Hindawi) 09:45–10:30

**Coffee break** 10:30 – 11:00

Serafimovsky Hall (3 floor)

**Four parallel oral sessions** 11:00 – 12:30

**DATA DRIVEN KNOWLEDGE-BASED SYSTEMS FOR BASIC AND APPLIED SCIENCES: COMBUSTION, DETONATION, NANOTECHNOLOGY, RENEWABLE ENERGETICS, ETC (ID 9)**

Aleksandrovsky Hall (2 floor)

Moderator: Alexander Lukin (Western-Caucasus Research Center)

11:00-11:15	<b>Victor S. Abrukov (ID 138)</b> Chuvash State University
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11:15-11:30	THE KNOWLEDGE-BASED SYSTEM IS A GOAL AND A TOOL FOR BASIC AND APPLIED RESEARCH
	<b>Victor Abrukov (ID 136)</b> Chuvash State University FORECASTING OF WORK OF SOLAR POWER PLANTS BY MEANS OF ARTIFICIAL NEURAL NETWORKS

### BIG DATA IN SCIENTIFIC AND COMMERCIAL SECTORS (ID 22)

Mikhailovsky Hall (1 floor)

Moderator: Ekpe Okorafor (African University of Science & Technology)

11:00-11:15	<b>Igor Nikiforov (ID 90)</b> Peter the Great St.Petersburg Polytechnic University A SYSTEM PROTOTYPE FOR REAL TIME AUTOMATIC FRAUD DETECTION IN TEXT DATA
11:15-11:30	<b>Igor Sheremet (ID 26)</b> Russian Foundation for Basic Research AUGMENTED POST SYSTEMS: STRING-OPERATING KNOWLEDGE REPRESENTATION FOR BIG DATA AND INTERNET OF THINGS APPLICATIONS
11:30-11:45	<b>Alexander Visheratin (ID 119)</b> ITMO University MODULAR DISTRIBUTED SEMANTICS-BASED STORAGE FOR BIG DATA PROCESSING

### DATA PLATFORMS FOR EARTH OBSERVATION AND INTEROPERABILITY (ID 40)

Sofiysky Hall (3 floor)

Moderator: Ludmila Zabarinskaya (GC RAS)

11:00-11:15	<b>Franz-Josef Behr (ID 179)</b> Stuttgart University of Applied Sciences GLOBAL CHALLENGES AND DATA-DRIVEN SCIENCE: AN APPROACH FOR RAISING AWARENESS ABOUT INDICATORS FOR THE SUSTAINABLE DEVELOPMENT GOALS
11:15-11:30	<b>Alexander Sterin (ID 114)</b> RIHMI-WDC WDCS IN OBNINSK, RUSSIA: ON A WAY TO WDS RESOURCE INTEGRATION
11:30 – 11:45	<b>Ludmila Zabarinskaya (ID 89)</b> GC RAS IMPROVEMENT OF ACCESS TO THE GEOMAGNETIC MEASUREMENT DATA

### PRACTICE AND IMPACT OF DATA CITATION (ID 36)

Vladimirsky Hall (3 floor)

Moderator: Yasuhiro Murayama

(National Institute of Information Communications Technology)

11:00-11:15	<b>Koji Zettsu (ID 140)</b> National Institute of Information and Communications Technology A DATA CITATION SYSTEM FRAMEWORK FOR
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	<b>IDENTIFICATION OF EVOLVING DATA</b>
11:15-11:30	<b>Yasuhiro Murayama (ID 182)</b> National Institute of Information Communications Technology ON RECOGNITION OF "PRIMARY DATA" PRODUCERS THROUGH DOI MINTED TO "SECONDARY DATA" DERIVED FROM THE PRIMARY DATA
11:30 – 11:45	<b>Natalia Sergeyeva (ID 103)</b> Geophysical Center of the Russian Academy of Sciences CREATION OF A MODERN SYSTEM OF REGISTRATION, PUBLICATION AND CITATION OF GEOPHYSICAL DATA

**Lunch** 12:30 – 14:00

Georgievsky Hall (0 floor)

**Four parallel oral sessions** 14:00 – 15:30

**COORDINATION OF DATA STANDARDS AND INTEROPERABILITY IN AGRICULTURAL RESEARCH: GAPS, OVERLAPS, CHALLENGES AND FUTURE DIRECTIONS (ID 35)**

Vladimirsky Hall (3 floor)

Moderator: Imma Subirats Coll (FAO of the United Nations)

14:00 – 14:15	<b>Sergey Bartalev (ID 222)</b> Space Research Institute WEB-BASED EARTH OBSERVATION DATA ANALYSIS SYSTEM VEGA-GEOGLAM IN SUPPORT OF GLOBAL AGRICULTURAL MONITORING RESEARCH AND DEVELOPMENT
14:15 – 14:30	<b>Valeria Pesce (ID 218)</b> Global Forum on Agricultural Research A GLOBAL MAP OF AGRI-FOOD DATA STANDARDS
14:30 – 14:45	<b>Imma Subirats Coll (ID 224)</b> FAO of the United Nations RDA INTEREST GROUP ON AGRICULTURAL DATA (IGAD)
14:45 – 15:00	<b>Odile Hologne (ID 223)</b> INRA TOWARDS AN E-INFRASTRUCTURE FOR OPEN SCIENCE IN AGRICULTURE

**BIG DATA IN SCIENTIFIC AND COMMERCIAL SECTORS (ID 22)**

Mikhailovsky Hall (1 floor)

Moderator: Simon Hodson (CODATA)

14:00 – 14:15	<b>Marius Wälchli (ID 124)</b> ETH Zürich HOW DO UNCERTAINTIES IN BIG DATA SETS DIFFER FROM DOMAIN SCIENCE DATASETS? THE CASE OF CLIMATE SCIENCE
14:15 – 14:30	<b>Refiloe Mabaso (ID 206)</b> Air Traffic and Navigation Services IMPLEMENTATION OF BUSINESS INTELLIGENCE SOLUTION IN SUPPORT OF DATA ANALYSIS, INFORMATION AND

	<b>KNOWLEDGE MANAGEMENT</b>
14:30 – 14:45	<b>Valentina Y. Guleva (ID 156)</b> ITMO University INCOMPLETE DATA RECONSTRUCTION ALGORITHM APPLIED TO INTERBANK MARKET

### DATA PLATFORMS FOR EARTH OBSERVATION AND INTEROPERABILITY (ID 40)

Sofiysky Hall (3 floor)

Moderator: Ludmila Zabarinskaya (GC RAS)

14:00 – 14:15	<b>Franz-Josef Behr (ID 178)</b> Stuttgart University of Applied Sciences TOWARDS AN INTEROPERABILITY MANIFESTO
14:15 – 14:30	<b>Julia Wagemann (ID 107)</b> European Centre for Medium-Range Weather Forecasts BEYOND OPEN DATA: TOWARDS STANDARDISED DATA ACCESS AND INTEROPERABILITY OF DECENTRALISED DATA REPOSITORIES
14:30 – 14:45	<b>Mikhail Burtsev (ID 209)</b> Space Research Institute of the Russian Academy of Sciences (IKI) DEVELOPMENT OF EARTH REMOTE SENSING DATA ANALYSIS TOOLS FOR VERY LARGE DISTRIBUTED DATA ARCHIVES
14:45 – 15:00	<b>Joey Mukherjee (ID 139)</b> Southwest Research Institute GENERIC SPACE SCIENCE VISUALIZATION IN 2D/3D USING SDDAS

### RESEARCH DATA - A MULTI-DIMENSIONAL PEG IN ACADEMIC PUBLISHING'S SQUARE HOLE? (ID 17)

Aleksandrovsky Hall (2 floor)

Moderator: Sarah Callaghan (STFC)

14:00 – 14:15	<b>Sarah Callaghan (ID 40)</b> STFC DATA PUBLICATION: MOVING BEYOND THE METAPHOR
14:15 – 14:30	<b>Fiona Murphy (ID 128)</b> MMC Ltd DATA2PAPER: GIVING RESEARCHERS CREDIT FOR THEIR DATA

**Coffee break** 15:30 – 16:00

Serafimovsky Hall (3 floor)/Andreevsky Hall (1 floor)

**Four parallel oral sessions** 16:00 – 17:30

### OPEN DATA AND EDUCATION (ID 41)

Vladimirsky Hall (3 floor)

Moderator: TBA Niv Ahituv (Tel Aviv University)

16:00 – 16:15	<b>Niv Ahituv (ID 205)</b> Tel Aviv University
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	ADAPTING UNDERGRADUATE PROGRAMS OF DATA SCIENCE TO THE PROFESSIONAL REQUIREMENTS OF THE INDUSTRY
16:15 – 16:30	<b>Isabelle Ansorge (ID 48)</b> University of Cape Town UNRAVELLING OCEAN DATA – AN INTRODUCTION TO SOUTH AFRICA'S FLOATING UNIVERSITY PROGRAMME "SEAMESTER"

### BIG DATA IN SCIENTIFIC AND COMMERCIAL SECTORS (ID 22)

Mikhailovsky Hall (1 floor)

Moderator: Simon Hodson (CODATA)

16:00 – 16:15	<b>Andrey Terekhov (ID 207)</b> SPbU PRACTICAL ASPECTS OF MACHINE LEARNING ALGORITHMS APPLICATION TO BIG DATA ANALYSIS
16:15 – 16:30	<b>Anna Nesvijevskaia (ID 72)</b> Conservatoire National des Arts et Métiers VALUE CREATING THROUGH DATA SCIENCE PROJECTS: INSUFFICIENCY OF THE STANDARD WORKFLOWS
16:30 – 16:45	<b>Alik Ismail-Zadeh (ID 27)</b> Karlsruhe Institute of Technology DATA DRIVEN MODELLING IN GEODYNAMICS: METHODS, APPLICATIONS, AND CHALLENGES

### DATA PLATFORMS FOR EARTH OBSERVATION AND INTEROPERABILITY (ID 40)

Sofiysky Hall (3 floor)

Moderator: Ludmila Zabarinskaya (GC RAS)

16:00 – 16:15	<b>Marcin Wichorowski (ID 191)</b> Institute of Oceanology, Polish Academy of Sciences HOW TO ACCOMPLISH INTEROPERABILITY OF HETEROGENEOUS CONCEPTS? MULTIFUNCTIONAL SENSORS AND SYSTEMS FOR IN-SITU MONITORING OF MARINE ENVIRONMENT
16:15 – 16:30	<b>Rossella Aversa (ID 52)</b> CNR INFORMATION AND DATA MANAGEMENT REPOSITORY PLATFORM FOR NANOSCIENCE IN EUROPE
16:30 – 16:45	<b>Valerii Kosykh (ID113)</b> RIHMI-WDC RIHMI-WDC: DATA ACCUMULATION, PRESERVATION, PROCESSING AND CUSTOMER SERVICES PROBLEMS

### RESEARCH DATA - A MULTI-DIMENSIONAL PEG IN ACADEMIC PUBLISHING'S SQUARE HOLE? (ID 17)

Aleksandrovsky Hall (2 floor)

Moderator: Sarah Callaghan (STFC Rutherford Appleton Laboratory)

16:00 – 16:15	<b>David P Martinsen (ID 168)</b> David Martinsen Consulting RESEARCH DATA IN CHEMISTRY: PAST AND FUTURE
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16:15 – 16:30	<b>SiZhe Xiao (ID 105)</b> GigaScience UPDATES TO THE GIGADB OPEN ACCESS DATA PUBLISHING PLATFORM
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**THURSDAY. 12 October 2017**

**Oral session** 9:00 – 10:30

**Two parallel Workshops** 9:00 – 10:30

**TRANSITIONING OPEN DATA FROM BEING A NOUN TO A VERB (ID 23)**

Borisoglebsky Hall (2 floor)

Profeza workshop

Moderator:

Fiona Myrphy (MMC Ltd)

**DEVELOPING & ADOPTING DIGITAL STANDARDS FOR FAIR EXCHANGE OF CHEMICAL DATA: IUPAC WORKSHOP ON CHEMICAL DATA STANDARDS (ID 30)**

Aleksandrovsky Hall (2 floor)

IUPAC Workshop

Moderator:

Simon Hodson (CODATA)

**Coffee break** 10:30 – 11:00

Serafimovsky Hall (3 floor)/Andreevsky Hall (1 floor)

**Three parallel oral sessions** 11:00 – 12:30

**BIG DATA IN MINING AND METALLURGICAL TECHNOLOGIES: APPLICATIONS AND PROSPECTS (ID 13)**

Aleksandrovsky Hall (2 floor)

Moderator: Leonid Vaisberg (Mekhanobr-Tekhnika REC)

11:00-11:15	<b>Igor Abrikosov (ID 51)</b> MUST MISIS, Linkoping University GENERATION AND ANALYSIS OF BIG DATA FOR ACCELERATED MATERIALS DESIGN
11:15-11:30	<b>Ivan Ustinov (ID 76)</b> Mekhanobr-Tekhnika REC BIG DATA IN SEPARATION PROCESS SIMULATIONS FOR MINERAL RAW MATERIALS
11:30 – 11:45	<b>Andrian Batugin (ID 196)</b> MUST MISIS TO THE RE-USING OF DATA ON ROCKBURSTS FOR UP TO DATE RESEARCH OF THE MINING SEISMICITY PROBLEM
11:45 – 12:00	<b>Alexander Khaitin (ID 200)</b> Yandex Data Factory APPLICATION OF MACHINE LEARNING TECHNOLOGIES FOR THE OPTIMIZATION OF PRODUCTION PROCESSES IN METALS AND MINING

12:00 – 12:15	<b>Sergey Solodov (ID 198)</b> NUST MISIS APPLIED PROBLEMS IN BIG DATA ANALYSIS FOR METALLURGY
12:15 – 12:30	<b>Mikhail Kruglov (ID 70)</b> NUST MISIS BIG DATA IN MINING AND METALLURGICAL TECHNOLOGIES: APPLICATIONS AND PROSPECTS

### **GEOSPATIAL DATA AND APPLICATIONS IN EARTH'S SCIENCES (ID 26)**

Vladimirsky Hall (3 floor)

**Moderator:** Roman Krasnoperov (GC RAS)

11:00-11:15	<b>Tatiana Khromova (ID 102)</b> Institute of Geography RAS SPATIAL DATA INFRASTRUCTURE FOR MULTIDISCIPLINARY GEOGRAPHICAL SCIENTIFIC RESEARCHES.
11:15-11:30	<b>Victor Getmanov (ID 93)</b> Geophysical Center of RAS A TECHNOLOGY FOR FILTERING GEOMAGNETIC FIELD OBSERVATIONS USING LOCAL APPROXIMATION MODELS
11:30 – 11:45	<b>Roman Krasnoperov (ID 120)</b> Geophysical Center of RAS INTEGRATION OF MODERN METHODS OF INTELLECTUAL DATA ANALYSIS IN GIS ENVIRONMENT
11:45 – 12:00	<b>Ivan Astapov (ID 79)</b> MEPhI INVESTIGATION OF GEOEFFECTIVE CMES IN 2014-2016 ACCORDING TO THE DATA OF MUON HODOSCOPE URAGAN
12:00 – 12:15	<b>Dmitriy Kudin (ID 226)</b> THE ALGORITHM FOR ESTIMATING THUNDERSTORM ACTIVITY FROM LOCAL WLLN STATION DATA

### **DATA ANALYSIS AND BIG DATA – HEALTH (ID 38)**

Borisoglebsky Hall (2 floor)

**Moderator:** Simon Hodson (CODATA)

11:00-11:15	<b>Oleg Metsker (ID 176)</b> ITMO University DATA-DRIVEN MODELING AND SIMULATION OF COMPLEX HEALTHCARE ENVIRONMENT FOR P4 MEDICINE
11:15-11:30	<b>Giuseppe Pirlo (ID 101)</b> University of Bari HANDWRITING-BASED ANALYSIS FOR ALZHEIMER'S DISEASE

**Lunch** 12:30 – 14:00

Georgievsky Hall (0 floor)

**Three parallel oral sessions** 14:00 – 15:30



## **BIG DATA IN MINING AND METALLURGICAL TECHNOLOGIES: APPLICATIONS AND PROSPECTS (ID 13)**

Aleksandrovsky Hall (2 floor)

**Moderator:** Leonid Vaisberg (Mekhanobr-Tekhnika REC)

14:00 – 14:15	<b>Vasilii Cheskidov (ID 55)</b> NUST MISIS DATA FLOWS MANAGEMENT OF MINING NATURAL/MAN-MADE SYSTEMS INTEGRATED STATE MONITORING
14:15 – 14:30	<b>Andrej Gerasimov (ID 75)</b> Mekhanobr-Tekhnika REC DATA PROCESSING AND IDENTIFICATION IN PROCESS MINERALOGY
14:30 – 14:45	<b>Vasily Malinnikov (ID 117)</b> Moscow State University of Geodesy and Cartography MULTIFRACTAL ANALYSIS OF DIFFERENT-SCALE ELECTRONIC IMAGES OF FOSSIL COAL SURFACE
14:45 – 15:00	<b>Oleg Kazanin (ID 121)</b> Saint-Petersburg Mining University BIG DATA IN THE MONITORING SYSTEMS OF AEROLOGICAL AND GEOMECHANICAL PROCESSES AT UNDERGROUND COAL MINES
15:00 – 15:15	<b>Elena Cherepetskaya (ID 32)</b> NUST "MISIS" REALIZATION OF DIGITAL CORE TECHNOLOGY USING LASER-ULTRASONIC STRUCTUROSCOPY
15:15 – 15:30	<b>Aleksandr Ermakov (ID 201)</b> IBS Company BUILDING MODERN DATA PLATFORM BASED ON OPEN SOURCE PROJECTS

## **GEOSPATIAL DATA AND APPLICATIONS IN EARTH'S SCIENCES (ID 26)**

Vladimirsky Hall (3 floor)

**Moderator:** Roman Krasnoperov (GC RAS)

14:00 – 14:15	<b>Alexander Fazliev (ID 148)</b> Institute of atmospheric optics SB RAS VRE FOR REGIONAL CLIMATIC PROCESSES ANALYSIS: ONTOLOGY APPROACH TO SPATIAL DATA SYSTEMATIZATION
14:15 – 14:30	<b>Anna Dmitrieva (ID 91)</b> National Research Nuclear University MEPhI (Moscow Engineering Physics Institute) SPECIFIC FEATURES OF CORRECTIONS FOR METEOROLOGICAL EFFECTS IN MATRIX DATA OF MUON HODOSCOPE URAGAN
14:30 – 14:45	<b>Anatoly Soloviev (ID 232)</b> Geophysical Center RAS GIS-ORIENTED DATABASE FOR SEISMIC HAZARD ASSESSMENT FOR SEISMICALLY ACTIVE REGIONS OF RUSSIA

14:45 – 15:00	<b>Nikolay Nikiforov (ID 229)</b> Lomonosov Moscow State University UTILIZING DEEP CONVOLUTIONAL NEURAL NETWORKS FOR LANDSCAPE MONITORING
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### DATA ANALYSIS AND BIG DATA - SOCIAL ANALYSIS (ID 38)

Borisoglebsky Hall (2 floor)

Moderator: TBA

14:00 – 14:15	<b>Victor Abrukov (ID 169)</b> Chuvash State University DEVELOPMENT OF COMPUTATIONAL MODELS OF SOCIAL-ECONOMIC PHENOMENA BY MEANS OF DATA MINING
14:15 – 14:30	<b>Sebastian Poedna (ID 236)</b> IIASA SIMULATING ENTIRE SOCIETIES AND ECONOMIES ON A COMPUTER

**Coffee break** 15:30 – 16:00

Serafimovsky Hall (3 floor)/Andreevsky Hall (1 floor)

**Oral session** 16:00 – 17:30

### BIG DATA IN MINING AND METALLURGICAL TECHNOLOGIES: APPLICATIONS AND PROSPECTS (ID 13)

Aleksandrovsky Hall (2 floor)

Moderator: Leonid Vaisberg (Mekhanobr-Tekhnika REC)

16:00 – 16:15	<b>Alexey Knjazhev (ID 203)</b> SAP Data Science USING BIG DATA IN PROCESS INDUSTRIES WITH SAP
16:15 – 16:30	<b>Mikhail Ageykin (ID 225)</b> EC-leasing NEW QUALITY OF PREDICTIVE ANALYTICS BY USING NEW DATA SOURCES: SOLUTIONS AND EXPERIENCE

*\*Organizing Committee reserves the right to make amendments to the program*



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GEOINFORMATICS RESEARCH PAPERS, VOL. 5, BS1002, 2017

DOI:10.2205/CODATA2017



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