

MONDAY, 8 MAY 2017

08:30 - 10:00

OPENING CEREMONY

Diamond Auditorium

Chair: Mmboneni Muofhe, Department of Science and Technology

Participants

Naledi Pandor, Minister of Science and Technology

Sheila Senkubuge, City of Tshwane

Val Munsami, SANSA

John Trinder, ISPRS

Charles Hutchinson, President ICRSE

10:00 - 10:30 | REFRESHMENT BREAK

10:30 - 12:30

PLENARY SESSION 1 | SUPPORT OF SPACE AGENCIES TO THE UN SUSTAINABLE DEVELOPMENT GOALS

Diamond Auditorium

Chair: Peter Breger, European Commission

Panellists

Stephen Briggs, ESA

Carlos Daniel Caruso, CONAE

Lawrence Friedl, NASA

Leila Maria Garcia, INPE

Guo Huadong, RAD1 CAS

Paida Mangara, SANSA

Osamu Ochiai, JAXA

Stephen Volz, NOAA

12:30 - 13:30 | LUNCH

13:30 to 15:00

SPACE AGENCY 1

Diamond Auditorium

Co-chairs: Val Munsami, SANSA and Peter Schaadt, DLR

Presentation title

THE EU EARTH OBSERVATION PROGRAMME

THE ESA EARTH OBSERVATION PROGRAMME

THE NASA EARTH OBSERVATION PROGRAMME

THE SANSA EARTH OBSERVATION PROGRAMME

EARTH OBSERVATION MISSIONS AND APPLICATIONS IN BRAZIL

Speaker

Peter Breger, European Commission

Stephen Briggs, ESA

Lawrence Friedl, NASA

Paida Mangara, SANSA

Leila Fonseca, INPE

CLIMATE VARIABILITY

Amber Room 1

Co-chairs: André Obregón, GEO Secretariat and Michael Rast, ESA

Presentation title

CLIMATE CHANGE - CENTRAL TO GEO'S ENVIRONMENTAL ACTIVITIES

EVALUATION OF QA4ECV LAND ECVS GENERATED USING AN OPTIMAL ESTIMATION FRAMEWORK

THE RESPONSES OF DRY-WET CONDITIONS TO EL NINO SOUTHERN OSCILLATION: A CASE STUDY IN CHINA

CLIMATE CHANGE AND LAND SURFACE PHENOLOGY IN THE NORTHEAST CHINA

THE EFFECTS OF EL NINO ON THE CO2 CONCENTRATION CHANGES IN OCEANIA REGION BY USING GREENHOUSE GAS MONITORING SATELLITES

Speaker

André Obregon, GEO Secretariat

Jan-Peter Muller, University College London

Zhongyi Sun, Hokkaido University

Jianjun Zhao, Northeast Normal University

Shuai Yin, Hokkaido University

VEGETATION FUNCTIONAL TYPES

Amethyst Room

Co-chairs: Elhadi Adam, University of the Witwatersrand and Onesimo Mutanga, University of Kwazulu-Natal

Presentation title	Speaker
MAPPING PROSOPIS GLANDULOSA (MESQUITE) INVASION IN ABA ISLAND, SUDAN USING HIGH-RESOLUTION WORLDVIEW-2 IMAGERY AND MACHINE LEARNING CLASSIFIERS	Elhadi Adam, University of the Witwatersrand
EXPLORING THE RELATIONSHIP BETWEEN SPECIES DIVERSITY AND TREE COVER IN THE SAVANNAH WOODLAND OF SOUTHERN AFRICA	Sabelo Madonsela, CSIR
MAPPING DISTRIBUTION OF WATER HYACINTH IN RWANDA USING MULTISPECTRAL REMOTE SENSING IMAGERY	Jeanne D'arc Mukarugwiro, University of the Witwatersrand
IMPACT OF LONG-TERM CHANGES IN THE SPATIAL STRUCTURE OF URBAN GREEN SPACES ON TEMPERATURE: A CASE OF HARARE, ZIMBABWE	Terence Mushore, University of Kwa-Zulu Natal
ANALYSIS OF TEMPORAL STATISTICS AND LONG TERM CLIMATE OBSERVATIONS FOR DERIVING THE PREDISPOSITION OF FORESTS TO STRESS EVENTS	Anne Reichmuth, University of Würzburg
USING LONG-TERM WATER CYCLE AND VEGETATION SATELLITE PRODUCTS FOR IMPROVED MODELLING OF TERRESTRIAL ECOSYSTEM DYNAMICS	Wolfgang Wagner, Technical University of Wien

INNOVATIVE INFRASTRUCTURES 4 EO

Emerald Auditorium

Co-chairs: Andiswa Mlisa, Group on Earth Observations (GEO) and Osamu Ochiai, GEO Secretariat

Presentation title	Speaker
EXPECTATIONS OF THE GEOSS INNOVATIVE INFRASTRUCTURE	Osamu Ochiai, GEO Secretariat
AMERIGEOSS COMMUNITY PLATFORM: AN EARTH OBSERVATION DELIVERY FRAMEWORK THAT BRINGS TOGETHER SOCIAL, ECONOMIC AND ENVIRONMENTAL DATA FROM A GLOBAL COMMUNITY OF CONTRIBUTORS TO SUPPORT UNDERSTANDING AND DECISION-MAKING	Ivan DeLoatch, Federal Geographic Data Committee
DIAS : DATA INTEGRATION AND ANALYSIS SYSTEM	Akira Mukaida, Remote Sensing Technology Center of Japan
AFRICA DATA INTENSIVE RESEARCH CLOUD: EARTH OBSERVATION DATA PLATFORM IN SUPPORT OF THE AFRICAN SPACE PROGRAMME AND AFRIGEOSS INITIATIVE	Andiswa Mlisa, GEO Secretariat
THE GLOBAL EARTH OBSERVATION SYSTEM OF SYSTEMS COMMON INFRASTRUCTURE:COMPONENTS GEOSS PORTAL AND GEO DISCOVERY AND ACCESS BROKER (GEO-DAB)	Joost Van Bemmelen, ESA-ESRIN

EO 4 URBAN SUSTAINABLE DEVELOPMENT GOAL

Crystal Room

Co-chairs: Yifang Ban, KTH Royal Institute of Technology and Marc Paganini, ESA

Presentation title	Speaker
AN OVERVIEW OF THE UNITED NATIONS URBAN SDG TARGETS AND INDICATORS: IMPLICATIONS FOR SPATIAL DATA NEEDS	Robert Peter Ndugwa, Un-habitat
THE ROLE OF SATELLITE OBSERVATIONS FOR MEASURING AND MONITORING THE URBAN SDG TARGETS AND INDICATORS	Marc Paganini, ESA
GEO'S EFFORTS IN SUPPORT OF SUSTAINABLE URBAN DEVELOPMENT	Thomas Kemper, European Commission
EO4URBAN: MULTITEMPORAL SENTINEL-1A SAR AND SENTINEL-2A MSI DATA FOR GLOBAL URBAN SERVICES	Yifang Ban, KTH Royal Institute of Technology
HUMAN SETTLEMENT DATA TO SUPPORT MEASURING AND MONITORING INDICATORS OF SUSTAINABLE DEVELOPMENT GOALS IN SOUTH AFRICA	Naledzani Mudau, SANSA
SENTINEL-2 MSI DATA FOR MAPPING AND MONITORING URBAN GREEN SPACES	Yifang Ban, KTH Royal Institute of Technology

15:00 - 15:30 | REFRESHMENT BREAK AND POSTERS Q&A

15:30 - 17:00

SPACE AGENCY 2

Diamond Auditorium

Co-chairs: Lawrence Friedl, NASA and Peter Schaadt, DLR

Presentation title	Speaker
CONAE EARTH OBSERVATION PROGRAMME	Carlos Daniel Caruso, CONAE
AGEOS EARTH OBSERVATION PROGRAMME	Aboubakar Mambimba Ndjoungui, AGEOS
CHINESE EARTH OBSERVATION PROGRAMME	Guo Huadong, RADI CAS
NOAA EARTH OBSERVATION PROGRAMME	Stephen Volz, NOAA
JAPANESE AEROSPACE EXPLORATION AGENCY	Osamu Ochiai, JAXA

WEATHER INFORMATION IN AFRICA

Amber Room 1

Co-chairs: Frank Eckardt, University of Cape Town and Hannes Rautenbach, SAWS

Presentation title	Speaker
COMPARING IMERG AND TMPA PRECIPITATION DATA IN AFRICA	Amin Dezfuli, NASA
THE BENEFITS OF A LIGHTNING DETECTION NETWORK AND ITS APPLICATIONS	Morne Gijben, SAWS
OPERATIONAL GEOSTATIONARY SATELLITE AT THE SOUTH AFRICAN WEATHER SERVICE	Bathobile Maseko, SAWS
SATELLITE MONITORING OF DUST STORMS OVER SOUTHWEST ASIA	Alireza Rashki, Ferdowsi University of Mashhad
COMPARATIVE STUDY OF TREND RUN AND PCA MODEL FOR PERFORMING THE TREND CALCULATION ON SAWS (SOUTH AFRICAN WEATHER SERVICE) ATMOSPHERIC DATA	Syamala Krishnannair, University of Zululand

FOREST CHARACTERISATION

Emerald Auditorium

Co-chairs: Peter Scarth, The University of Queensland and Christiane Schmillius, Friedrich-Schiller University Jena

Presentation title	Speaker
VERY HIGH RESOLUTION MAPPING OF SPEKBOOM CANOPY COVER	Dugal Harris, Stellenbosch University
A COMPARATIVE ANALYSIS OF NFI-BASED AND LIDAR-BASED FOREST ABOVEGROUND BIOMASS MAPS IN MEXICO	Mikhail Urbazaev, Friedrich-Schiller-University Jena
CANOPY GAP ANALYSIS USING LIDAR-DERIVED VARIABLES	Leighton Lombard, Stellenbosch University
STRUCTURAL CLASSIFICATION OF AUSTRALIA'S FORESTS AND DETERMINATION OF RELATIVE GROWTH STATES	Peter Scarth, The University of Queensland
FOREST-OBSERVATION-SYSTEM.NET – TOWARDS GLOBAL REFERENCE DATABASE FOR FOREST BIOMASS	Dmitry Schepaschenko, Friedrich-Schiller-University Jena
GLOBBIOBIOMASS - ESTIMATES OF BIOMASS ON GLOBAL AND REGIONAL SCALES	Christiane Schmillius, Friedrich-Schiller-University Jena

URBAN MONITORING

Crystal Room

Co-chairs: Thomas Esch, DLR and Christopher Small, Columbia University

Presentation title	Speaker
COMPARATIVE ASSESSMENT OF THE COPERNICUS LAND MONITORING PAN-EUROPEAN HIGH RESOLUTION LAYER ON IMPERVIOUSNESS DEGREE AND THE EUROPEAN SETTLEMENT LAYER	Christophe Sannier, SIRS SAS
RECENT ADVANCES IN GLOBAL MAPPING OF HUMAN SETTLEMENT WITH SENTINEL DATA: ADDRESSING THE BIG DATA PARADIGM SHIFT THROUGH THE SYMBOLIC MACHINE LEARNING TECHNOLOGY	Thomas Kemper, European Commission
USING SATELLITE DATA FOR IMPROVED URBAN DEVELOPMENT IN DEVELOPING COUNTRIES	Fabian Enssle, GAF AG
MAPPING URBANIZATION BY MEANS OF ESA RADAR IMAGERY - THE SAR4URBAN PROJECT	Soner Üreyen, DLR
MONITORING URBAN CHANGE IN THREE DIMENSIONS	Christopher Small, Columbia University
EARTH OBSERVATION-SUPPORTED SERVICE PLATFORM FOR THE DEVELOPMENT AND PROVISION OF THEMATIC INFORMATION ON THE BUILT ENVIRONMENT – THE TEP-URBAN PROJECT	Thomas Esch, DLR

INTERFEROMETRY FOR SURFACE DEFORMATION

Onyx Room

Co-chairs: Jeanine Engelbrecht, CSIR and Abraham Thomas, CGS

Presentation title	Speaker
PILLAR-COLLAPSE IN SOUTH AFRICAN COAL MINES AND RELATED SURFACE DEFORMATION AS DETECTED USING SENTINEL-1 DINSAR APPROACHES	Jeanine Engelbrecht, CSIR
MONITORING POST-MINING REHABILITATION USING MULTI-SENSOR SAR DATA: FIRST RESULTS	Shelley Haupt, CSIR
OBSERVATION OF GROUND SURFACE DEFORMATION IN COASTAL AREAS BY SAR INTERFEROMETRY	Daniel Raucoles, BRGM
INSAR FOR OIL FIELD DEFORMATION MONITORING DURING CYCLIC STEAM STIMULATION	Gordon Staples, MDA
A REVIEW OF SINKHOLE PRECURSOR DETECTION THROUGH SAR INTERFEROMETRY	Andre Theron, CSIR
RADAR INTERFEROMETRY USING SENTINEL-1 SAR DATA FOR IDENTIFYING SURFACE DEFORMATION IN KWAZULU-NATAL PROVINCE ASSOCIATED WITH THE DURBAN EARTHQUAKE OF 6 FEBRUARY 2016	Abraham Thomas, CGS

17:00 - 17:10 | TRANSFER TIME

17:10 - 18:40

SPACE AGENCY 3

Diamond Auditorium

Co-chairs: Stephen Briggs, ESA and Peter Schaadt, DLR

Presentation title	Speaker
EARTH OBSERVATION ACTIVITIES AND FUTURE PERSPECTIVES IN EGYPT	Islam Abou El-Magd, NARSS
THE GERMAN EARTH OBSERVATION PROGRAMME	Peter Schaadt, DLR
CNES' EARTH OBSERVATION PROGRAMME: CONTRIBUTING TO THE GLOBAL EARTH OBSERVING SYSTEM OF SYSTEMS	Steven Hosford, CNES
REGIONAL CENTRE FOR MAPPING OF RESOURCES DEVELOPMENT	John Kiema, RCMRD
THE ESTABLISHMENT OF THE EXCELLENCE RESEARCH CENTRE FOR EARTH SURVEILLANCE AND SPACE-BASED MONITORING OF THE ENVIRONMENT (EXCELSIOR) IN CYPRUS	Kyriacos Themistocleous, Cyprus University of Technology

CROP INVENTORY & SOIL ASSESSMENT

Amber Room 1

Co-chairs: Doris Klein, DLR and Terence Newby, Agricultural Research Council

Presentation title	Speaker
EARTH OBSERVATION METHODS FOR MONITORING SALT ACCUMULATION IN IRRIGATED AREAS	Adriaan Van Niekerk, Stellenbosch University
MAPPING PADDY RICE IN ASIA - A MULTI-SENSOR, TIME-SERIES APPROACH	Kersten Clauss, University of Wuerzburg
COFFEE CROP 'HEALTH' MONITORING USING SATELLITE DATA – CAN IT WORK?	Peter Hausknecht, Earth-i Ltd
ALGORITHM FOR IMPROVED TREE COUNTING AND DETECTION OF HIGH VALUE CROPS IN MISAMIS ORIENTAL THROUGH ADAPTIVE MACHINE LEARNING APPROACH WITH THE INTEGRATION OF WATERSHED TRANSFORMATION AND LOCAL MAXIMA ANALYSIS	Jigg Pelayo, Phil-LiDAR 2
REMOTE SENSING BASED ANALYSIS OF MASS MOVEMENTS AND SOIL EROSION IN THE ETHIOPIAN HIGHLANDS	Volker Hochschild, University of Tuebingen

PROTECTED AREAS

Amethyst Room

Co-chairs: *Barend Erasmus, University of the Witwatersrand and Izak Smit, SANParks*

Presentation title	Speaker
LAND COVER MAPPING AND MONITORING IN THE KAVANGO ZAMBEZI TRANSFRONTIER CONSERVATION AREA (KAZA TFCA) : TRENDS, APPLICATIONS & USE	Natlie Diemer, Peace Parks Foundation
PROTECTED AREA'S: ISLANDS IN THE LANDSCAPE?	Debbie Jewitt, Ezemvelo KZN Wildlife
STANDARDISED SATELLITE-BASED CLASSIFICATIONS OF LAND COVERS IN PROTECTED AREAS AND SURROUNDING LANDSCAPES	Richard Lucas, University of New South Wales
REMOTE SENSING FOR ESSENTIAL BIODIVERSITY VARIABLES (RS4EBV): APPLICATIONS TO PROTECTED AREAS	Brian O'Connor, WCMC
LIMITS TO GROWTH IN THE ALBANY THICKET BIOME: VEGETATION TRENDS AND PATTERNS FROM EARTH OBSERVATION PRODUCTS OVER THE ADDO ELEPHANT NATIONAL PARK AND EZULU GAME RESERVE	Anthony Palmer, Agricultural Research Council
USING SPATIO-TEMPORALLY EXPLICIT MODIS EVI TIME SERIES TO INFORM HERBIVORE MANAGEMENT DECISION MAKING IN SOUTH AFRICAN NATIONAL PARKS	Izak Smit, SANParks
MONITORING DIMENSIONS OF BIODIVERSITY IN A MEGA-DIVERSE REGION OF SOUTHERN AFRICA: FROM TRAITS TO COMMUNITIES TO ECOSYSTEMS	Adam Wilson, University at Buffalo

IMPROVING WATER RESOURCE

Ruby Auditorium

Co-chairs: *Andiswa Mliwa, Group on Earth Observations (GEO) and Lisa-Maria Rebelo, International Water Management Institute*

Presentation title	Speaker
INTEGRATION OF SATELLITE RAINFALL DATA AND CURVE NUMBER METHOD FOR RUNOFF ESTIMATION UNDER SEMIARID WADI SYSTEM	Mohamed A. M. Abd Elbasit, Agricultural Research Council
WATER RELATED ACTIVITIES IN GEO (GROUP ON EARTH OBSERVATIONS)	Vanessa Aellen, CNES
HIGH-RESOLUTION ENHANCED PRODUCT BASED ON SMAP ACTIVE-PASSIVE APPROACH AND SENTINEL 1A RADAR DATA	Narendra Das, NASA
WATER ACCOUNTING +: REMOTE SENSING BASED ASSESSMENTS OF WATER USE AND AVAILABILITY	Lisa-Maria Rebelo, IWMI
AN INTERFEROMETRIC SYNTHETIC APERTURE RADAR (INSAR) ANALYSIS FOR WATER LEVEL MONITORING: A CASE STUDY IN NEWFOUNDLAND AND LABRADOR	Bahram Selehi, Memorial University
SURFACE WATER AND OCEAN TOPOGRAPHY (SWOT) MISSION APPLICATIONS USER NEEDS ASSESSMENT	Margaret Srinivasan, JPL Caltech
PARAMETERIZING NET RADIATION USING REMOTE SENSING DATA FOR EVAPOTRANSPIRATION MODELING	Nobuhle Majozi, CSIR

URBAN CLIMATE & ENVIRONMENT

Crystal Room

Co-chairs: *Nektarios Chrysoulakis, FORTH and Roberto San Jose, Computer Science School*

Presentation title	Speaker
SPATIOTEMPORAL VARIATIONS IN THE IMPACTS OF URBAN LAND USE TYPES ON URBAN HEAT ISLAND EFFECTS: THE CASE OF RIYADH, SAUDI ARABIA	Elhadi Adam, University of the Witwatersrand
COMPARATIVE 3D EVALUATION OF FINE-SCALE GLOBAL AND LOCAL NORMALISED DEMS: THE TSHWANE CASE STUDY	André Breytenbach, CSIR
ANTHROPOGENIC HEAT FLUX ESTIMATION FROM SPACE: RESULTS OF THE SECOND PHASE OF THE URBANFLUXES PROJECT	Nektarios Chrysoulakis, FORTH
CLIMATE CHANGE EFFECTS ON URBAN LEVEL: CITIZEN HEALTH AND BUILDING ENERGY DEMAND	Roberto San Jose, Computer Science School
BUILDING OUTLINE DETECTION OF INFORMAL DWELLINGS IN SUB-METRE OPTICAL IMAGERY USING ATTRIBUTE MORPHOLOGY AND SHAPE DESCRIPTORS	Frans van den Bergh, CSIR

19:00 - 21:00 | ICE BREAKER

TUESDAY, 9 MAY 2017

08:30 - 10:30

PLENARY SESSION 2 | SHOWCASING THE SOCIO ECONOMIC IMPACT OF EO

Diamond Auditorium

Chair: *Barbara Ryan, GEO Secretariat*

Presentation title

THE COPERNICUS PROGRAMME IN A CHANGING WORLD

THE NORWEGIAN SYSTEM FOR DEVELOPING AND EXPLOITING INSAR INFORMATION IN OPERATIONAL GOVERNMENTAL AND COMMERCIAL SERVICES

VALUE OF EARTH OBSERVATION FOR SOCIETAL NEEDS

SOCIETAL IMPACT OF NEW AND IMPROVED MEASUREMENTS FROM UPCOMING CNES MISSIONS

THE EVOLUTION OF THE ADVANCED FIRE INFORMATION SYSTEM (AFIS): FROM A LOCAL TRAGEDY TO GLOBAL SUCCESS

NATIONAL AUTHORITY FOR REMOTE SENSING & SPACE SCIENCES

Speaker

Peter Breger, European Commission

Dag Anders Moldestad, NSC

Gunter Schreier, DLR

Steven Hosford, CNES

Philip Frost, CSIR

Islam Abou El-Magd, NARSS

10:30 - 11:00: REFRESHMENT BREAK

11:00 - 12:30

COPERNICUS 1

Diamond Auditorium

Co-chairs: *Michael Cherlet, European Commission and Konrad Wessels, CSIR*

Presentation title

THE EU COPERNICUS MARINE SERVICE - AN INTEGRATED OFFER BASED ON STATE-OF-THE-ART SCIENTIFIC KNOWLEDGE

THE EU COPERNICUS ATMOSPHERE SERVICE - WHAT ATMOSPHERE IS IT? MONITORING ATMOSPHERIC COMPOSITION, RADIATION AND SURFACE FLUXES FOR THE USERS OF THE COPERNICUS - ATMOSPHERE MONITORING SERVICE (CAMS)

THE COPERNICUS CLIMATE CHANGE SERVICE (C3S) IN THE MAKING - THE C3S SERVICE AND PRODUCTS

THE EU COPERNICUS EMERGENCY SERVICE – SUPPORT TO DISASTER MANAGEMENT FROM SPACE

THE EU COPERNICUS GLOBAL LAND COMPONENT OF THE LAND SERVICE - THE GLOBAL LAND COMPONENT: BRINGING SPACE DOWN TO EARTH

THE EU COPERNICUS PAN-EUROPEAN AND LOCAL LAND COMPONENT OF THE LAND SERVICE - OBSERVING EUROPE: THE SERVICE'S PRODUCTS

Speaker

Cecile Thomas-Courcoux, Mercator Ocean

Jean-Noel Thépaut, ECMWF

Jean-Noel Thépaut, ECMWF

Annett Wania, European Commission

Michael Cherlet, European Commission

Ana Sousa, EEA

CRYOSPHERE

Amber Room 1

Co-chairs: *Andreas Dietz, DLR and Peter Friedl, DLR*

Presentation title

TANDEM X-BAND INTERFEROMETRIC AND POLARIMETRIC OBSERVATIONS OF SUB-ARCTIC SNOW

TIME SERIES ANALYSIS OF GLOBAL DAILY SNOW COVER EXTENTS DERIVED FROM MEDIUM RESOLUTION REMOTE SENSING DATA - GLOBAL SNOWPACK

ESTIMATION OF ICE THICKNESS ON LARGE NORTHERN LAKES FROM JASON-2 RADAR ALTIMETER AND PASSIVE MICROWAVE DATA

LONG-TERM MONITORING OF THE GLACIERS IN WORDIE BAY, ANTARCTIC PENINSULA, USING MULTI-MISSION SAR TIME SERIES

INFLUENCE OF DRY SNOW COVER ON TANDEM-X DATA OVER A HIGH LATITUDE BOREAL FOREST ECOSYSTEM

ASSESSING THE VERTICAL AND HORIZONTAL MOVEMENT OF ICE AND SNOW FACIES ALONG THE BALTORO GLACIER BY SAR TECHNOLOGY

Speaker

Ian Brown, Stockholm University

Andreas Dietz, DLR

Claude Duguay, University of Waterloo

Peter Friedl, DLR

Dimitra Panagiotopoulou, Stockholm University

Anna Wendleder, DLR

RS OF PHENOLOGY

Amethyst Room

Co-chairs: *Sally Archibald, University of the Witwatersrand and Robert Scholes, University of the Witwatersrand*

Presentation title

MONITORING AND MODELLING VEGETATION PHENOLOGY FROM SPACE

THE POSSIBILITY OF USING MODIS-BASED PHENOMETRICS AND GENERALIZED LINEAR MODELING (GLM) FOR MAPPING LAND DEGRADATION PROCESSES IN SOMALILAND

UNMIXING THE PHENOLOGY OF TREES AND GRASSES IN SEMI-ARID SAVANNAS

OAK (QUERCUS PETREA) TREE PHENOLOGY VARIABILITY MONITORED BY DIGITAL CAMERAS ONBOARD A UAV: A COMPARISON OF INDICES

INTEGRATING FIELD-BASED AND REMOTE-SENSING TECHNIQUES TO MONITOR THE PHENOLOGY OF SOUTHERN AFRICAN SAVANNAS

PHENOLOGY OF THE ENKANGALA GRASSLANDS

Speaker

Michel Verstraete, University of the Witwatersrand

Tobias Landmann, ICIPE

Robert Scholes, University of the Witwatersrand

Elias Berra, Newcastle University

Melissa A Whitecross, University of the Witwatersrand

Mthokozisi Moyo, University of the Witwatersrand

NEW PHILOSOPHY FOR LANDCOVER

Ruby Auditorium

Co-chairs: *André Obregón, GEO Secretariat and Zoltan Szantoi, EC*

Presentation title

A NEW ERA FOR LAND CHANGE MONITORING: THE USGS LAND CHANGE MONITORING, ASSESSMENT, AND PROJECTION (LCMAP) PROJECT

Speaker

André Obregón, GEO Secretariat

AUTOMATED GLOBAL LAND COVER MAPPING - FROM GLC VERSION 2

Peng Gong, Tsinghua University

THE NEED FOR A GLOBAL REFERENCE DATABASE FOR LAND COVER AND LAND USE MAPPING

Steffen Fritz, IIASA

GLOBELAND30: RECENT DEVELOPMENT AND PROGRESSES

Jun Chen, National Geomatics Center of China

IMPROVING GLOBAL LAND COVER MAPPING BY INTEGRATING EXISTING DATA

Linda See, IIASA

ARCHEOLOGY

Crystal Room

Co-chairs: *Mario Hernandez, Future Earth Engagement Committee and Gunter Schreier, DLR*

Presentation title

CLOSE RANGE REMOTE SENSING (DRONES) TO SUPPORT NATIONAL HERITAGE AUTHORITIES IN CAMPECHE, MEXICO

Speaker

Philippe De Maeyer, Ghent University

COPERNICUS SENTINELS EO-DATA FOR URBAN LANDFILLS DETECTION AND MONITORING

Enrico Giuseppe Cadau, SERCO

FROM DETECTION OF UNDERGROUND ARCHAEOLOGICAL RELICS TO MONITORING OF WORLD HERITAGE SITES IN DANGER: ONGOING RESEARCH ACTIVITIES IN THE FRAME OF THE ATHENA TWINNING PROJECT

Daniele Cerra, DLR

ARCHAEOLOGICAL SURVEYS ON THE GERMAN NORTH SEA COAST USING HIGH-RESOLUTION SYNTHETIC APERTURE RADAR DATA

Martin Gade, Universität Hamburg

SENSING THE PAST FROM SPACE: REMOTE SENSING FOR DOCUMENTATION, MONITORING AND PRESERVATION OF CULTURAL HERITAGE

Rosa Lasaponara, CNR

APPLICATION OF REMOTE SENSING TECHNOLOGY IN EXPLORING THE ORIGIN OF CHINESE CIVILIZATION

Li Jun Yu, RADI

PRESERVATION THROUGH EDUCATION - GEOTECHNOLOGIES FOR TRAINING UNESCO SITE MANAGERS IN COPERNICUS DATA ANALYSIS FOR MONITORING AND SUSTAINABLE DEVELOPMENT OF CULTURAL AND NATURAL WORLD HERITAGE

Nils Wolf, Heidelberg University of Education

RANGELAND MONITORING 1

Onyx Auditorium

Co-chairs: *Clement Adjorlolo, SANSA and Michael Schaefer, University of New England*

Presentation title

INTERACTIVE TOOLS FOR ASSESSING GRAZING IMPACTS ACROSS AUSTRALIA'S ARID RANGELANDS USING VARIABILITY IN NON-PHOTOSYNTHETIC GROUND COVER

Speaker

Jason Barnetson, The University of Queensland

LONG-TERM LAND MANAGEMENT EFFECTS ON RANGELAND VEGETATION COVER IN THE STRZELECKI DESERT

Adrian Fisher, The University of Queensland

MODELLING CARRYING CAPACITY IN THANDA GAME RESERVE, SOUTH AFRICA USING LANDSAT 8 MULTISPECTRAL DATA

Zakariyyaa Umar, South African Department of Environmental Affairs

INTEGRATION OF OPTICAL AND SYNTHETIC APERTURE RADAR (SAR) IMPROVES HERBACEOUS BIOMASS ESTIMATION USING SENTINEL-1 AND 2 IN THE SAVANNA ECOSYSTEM, SOUTH AFRICA

Abel Ramoelo, CSIR

TAILORING EARTH OBSERVATION TO RANCHERS FOR IMPROVED LAND MANAGEMENT AND PROFITABILITY

Peter Scarth, The University of Queensland

LASER SCANNING IN SAVANNAS AND OTHER RANGELANDS FOR ESTIMATING BIOMASS AND OTHER VEGETATION STRUCTURAL PARAMETERS

Michael Schaefer, University of New England

12:30 - 13:30 LUNCH

13:30 - 15:00

COPERNICUS 2

Diamond Auditorium

Co-chairs: *Michael Cherlet, European Commission and Lerato Dube, Department of Science & Technology*

Presentation title

COPERNICUS MARINE ENVIRONMENT MONITORING SERVICE, THE UNIQUE EU CAPACITY AT THE SERVICE OF BLUE GROWTH AND SUSTAINABLE OCEANS: USE CASES AND SUCCESS STORIES

Speaker

Cecile Thomas-Courcoux, Mercator Ocean

THE EU COPERNICUS ATMOSPHERE SERVICE - CAMS IN ACTION: THE PORTFOLIO OF PRODUCTS AND SOME USE CASES

Jean Noel Thepaut, ECMWF

THE EU COPERNICUS CLIMATE CHANGE SERVICE (C3S) IN THE MAKING - USING THE C3S PORTFOLIO

Jean Noel Thepaut, ECMWF

THE EU COPERNICUS EMERGENCY SERVICE - USE CASES OF THE SERVICES

Annett Wania, European Commission

MONITORING KEY LANDSCAPES FOR CONSERVATION WITHIN THE GLOBAL LAND COMPONENT OF THE COPERNICUS LAND SERVICE: THE AFRICAN CONTINENT

Zoltan Szantoi, European Commission

THE EU COPERNICUS GLOBAL LAND COMPONENT OF THE LAND SERVICE - GLOBAL LAND USE CASES

Michael Cherlet, European Commission

THE EU COPERNICUS PAN-EUROPEAN AND LOCAL LAND COMPONENT OF THE LAND SERVICE - LAND MONITORING USE CASES

Ana Sousa, European Commission

AEROSOL PROPERTIES

Amber Room 1

Co-chairs: Nicky Knox, Namibia University of Science and Technology and Stuart Piketh, North-West University

Presentation title	Speaker
SOUTHERN AFRICAN DUST SOURCES	Frank Eckardt, University of Cape Town
IMPROVING UNDERSTANDING OF AEROSOL PARTICLES AND THEIR IMPACTS IN AFRICA THROUGH REGIONAL MODELLING AND REMOTE SENSING	Rebecca M Garland, CSIR
CHARACTERIZATION OF AEROSOL EMISSIONS FROM AFRICAN BIOMASS BURNING	Charles Ichoku, NASA
SPATIAL AND TEMPORAL VARIATION IN AEROSOLS ACROSS NAMIBIA OVER A YEAR. IMPLICATIONS FOR REMOTE SENSING ATMOSPHERIC CORRECTION MODELS	Nicky Knox, Namibia University of Science and Technology
LONG-TERM ATMOSPHERIC AEROSOL CHARACTERISTICS OVER NAMIBIA	Stuart Piketh, North-West University
AEROSOL-RADIATION-CLOUD INTERACTIONS IN THE SOUTH-EAST ATLANTIC: FIRST RESULTS FROM NASA'S ORACLES-2016 DEPLOYMENT AND PLANS FOR FUTURE ACTIVITIES	Jens Redemann, NASA

INTEROPERABILITY FOR QUANTIFYING FOREST STRUCTURE

Amethyst Room

Co-chairs: Richard Lucas, University of New South Wales and Christiane Schmillius, Friedrich-Schiller University Jena

Presentation title	Speaker
ESTIMATION OF CANOPY HEIGHT IN A COMPLEX VEGETATION ENVIRONMENT USING SENTINEL-1 SAR	Arno Boozyen, University of Johannesburg
MAPPING GROWING STOCK VOLUME GLOBALLY USING ALOS PALSAR L-BAND SAR MOSAICS, OPTICAL CANOPY DENSITY MAPS AND ICESAT GLAS	Oliver Cartus, Gamma Remote Sensing
ASSESSING MANGROVE DIEBACK IN NORTHERN AUSTRALIA USING LIDAR AND ULTRA-HIGH RESOLUTION IMAGERY	Peter Erskine, The University of Queensland
SENTINEL-1 AND -2 DATA FOR OPTIMIZED FOREST COVER DETECTION IN EUROPEAN TEMPERATE FORESTS AND SOUTH AFRICAN SAVANNA	Kai Heckel, Friedrich-Schiller-University Jena
REMOTE SENSING DATA FOR MAPPING AND MONITORING THE AFRICAN SAVANNA WOODLANDS, CASE OF LIWALE, TANZANIA	Sizwe Mabaso, The University of Swaziland
INDIRECT ESTIMATION OF VEGETATION STRUCTURAL PARAMETERS IN SOUTH AFRICAN FORESTS USING OPTICAL MULTI-VIEW AND LIDAR REMOTE SENSING DATA	Precious Nokuthula Mahlangu, CSIR

WATER QUALITY

Ruby Auditorium

Co-chairs: Johnny Johannessen, NERSC and Robert Shuchman, Michigan Technological University

Presentation title	Speaker
MAPPING AND MONITORING OPEN WATER BODIES IN AN AGRICULTURAL AREA USING SAR INTERFEROMETRY AND POLARIMETRY	Jaco Kemp, Stellenbosch University
ESTIMATION OF CHLOROPHYLL-A IN EUTROPHIC INLAND WATERS USING SENTINEL 3 OCEAN AND LAND COLOR INSTRUMENT	Jeremy Kravitz, University of Cape Town
REDUCING THE RISK OF CYANOBACTERIA USING SATELLITE-BASED SERVICES: THE EARTH OBSERVATION NATIONAL EUTROPHICATION MONITORING PROGRAMME (EONEMP) EXAMPLE	Mark Matthews, CyanoLakes
SATELLITE OBSERVED WATER QUALITY CHANGES IN THE LAURENTIAN GREAT LAKES DUE TO INVASIVE SPECIES, ANTHROPOGENIC FORCING AND CLIMATE CHANGE	Robert Shuchman, Michigan Technological University

EO DATA & PRODUCTS

Emerald Auditorium

Co-chairs: Ivan DeLoatch, Federal Geographic Data Committee and Aubrey Kekana, SANSA

Presentation title	Speaker
SIMOCEAN: COLLABORATIVE SYSTEM FOR THE CREATION OF MARINE SERVICES	Nuno Catarino, DEIMOS
SPATIAL DATA INFRASTRUCTURE TO SUPPORT THE NATIONAL OCEANS AND COASTAL INFORMATION MANAGEMENT SYSTEM: A DATA GOVERNANCE VIEW	Nicolene Fourie, CSIR
HETEROGENEOUS SENSOR DATA INTEGRATION: CHALLENGES, APPROACHES AND BENEFITS	Derek Hohls, CSIR
THE NORTHERN VOICE: LISTENING TO INDIGENOUS AND NORTHERN PERSPECTIVES ON MANAGEMENT OF DATA IN CANADA	Ellsworth Ledrew, University of Waterloo
PLANNED GROUND SEGMENT ARCHITECTURE FOR EO-SAT1	Willard Mapurisa, SANSA
ASTRONAUT PHOTOGRAPHY OF THE EARTH: A LONG-TERM DATASET FOR EARTH SYSTEM RESEARCH, APPLICATIONS, AND EDUCATION	William L. Stefanov, NASA

HUMAN SETTLEMENTS

Crystal Room

Co-chairs: Thomas Kemper, EC and Naledzani Mudau, SANSA

Presentation title	Speaker
MULTITEMPORAL SPACEBORNE SAR DATA FOR URBANIZATION MONITORING	Yifang Ban, KTH Royal Institute of Technology
A PUBLIC FREE AND OPEN TOOL FOR MAPPING HUMAN SETTLEMENTS	Thomas Kemper, European Commission
HUMAN SETTLEMENT DATA USE ON POWER UTILITY	Tshisikhawe Mphaphuli, Eskom Holdings
TOWARDS DEVELOPMENT OF A NATIONAL HUMAN SETTLEMENT LAYER USING HIGH RESOLUTION IMAGERY	Naledzani Mudau, SANSA
TOWARDS UNDERSTANDING HUMAN SETTLEMENT GROWTH IN SOUTH AFRICA	Naledzani Mudau, SANSA

RANGELAND MONITORING 2

Onyx Auditorium

Co-chairs: Abel Ramoelo, CSIR and Peter Scarth, The University of Queensland

Presentation title	Speaker
AN EVALUATION OF SENTINEL-2 BASED LAI AND CANOPY LEAF CHLOROPHYLL PRODUCTS FOR AGRO-ECOLOGICAL APPLICATIONS	Clement Adjorlolo, SANSA
RETRIEVAL AND VALIDATION OF GRASS TRAITS USING SENTINEL- 2	Moses Cho, CSIR
GLOBAL MONITORING OF RANGELAND AND PASTURE PRODUCTIVITY WITHIN THE GEOGLAM INITIATIVE (RAPP)	Alex Held, CSIRO
ASSESSING THE ACCURACY OF NON-PARAMETRIC INVERSION OF RADIATIVE TRANSFER MODELS FOR ESTIMATING LEAF AREA INDEX OF AFRICAN RANGELAND USING LANDSAT 8 OLI DATA	Cecilia Masemola, CSIR
MANAGEMENT EFFECTS ON GROUND COVER "CLUMPINESS": SCALING FROM FIELD TO SENTINEL-2 COVER ESTIMATES	Peter Scarth, The University of Queensland
DEVELOPING AND TESTING A RANGELAND MONITORING SYSTEM WITH NAMIBIAN FARMERS	Cornelis van der Waal, Agri-Ecological Services

15:00 - 15:30 | REFRESHMENT BREAK

15:30 - 17:00

FUTURE MISSIONS

Diamond Auditorium

Co-chairs: Lerato Dube, Department of Science & Technology and Hilcea Ferreira, INPE

Presentation title	Speaker
THE COPERNICUS SPACE SEGMENT IS GROWN-UP: STATUS AND FUTURE	Ivan Petiteville, ESA
RECENT RESULTS OF THE FIREBIRD MISSION	Eckehard Lorenz, DLR
NSIGHT-1 : A 2U EARTH OBSERVATION NANOSAT IN THE QB50 CONSTELLATION	Francois Malan, SCS Aerospace Group
PERSPECTIVES INTO EO-SAT1 SATELLITE SENSOR SPECIFICATIONS: A REVIEW OF THE OPPORTUNITIES AND TRADE-OFFS IN THE DESIGN PROCESS	Willard Mapurisa, SANSA
FUTURE NANOSATELLITE-BASED EARTH OBSERVATION - A NOVEL FIRESAT MISSION	Robert van Zyl, Cape Peninsula University of Technology
CURRENT STATUS OF HYPERSPECTRAL IMAGER SUITE (HISUI) ONBOARD INTERNATIONAL SPACE STATION (ISS)	Tsuneo Matsunaga, National Institute for Environmental Studies

WILDFIRE 1

Amber Room 1

Co-chairs: Philip Frost, CSIR and Amber Soja, NASA

Presentation title	Speaker
VIIRS ACTIVE FIRE DATA TO SUPPORT REGIONAL ENVIRONMENTAL APPLICATIONS	Ivan Csiszar, NOAA STAR
MULTI-SATELLITE OBSERVATION OF AFRICAN FIRES AND CHARACTERIZATION OF BURNING PATTERNS	Charles Ichoku, NASA
POTENTIAL OF SENTINEL-1 C-BAND FOR RETRIEVING FIRE SCAR IN DECIDUOUS SOUTHERN AFRICAN SAVANNAHS	Renaud Mathieu, CSIR
TOWARDS PROTOTYPING A GLOBAL LANDSAT-8 SENTINEL-2 BURNED AREA PRODUCT	David Roy, South Dakota State University
THE EFFECT OF FIRE ON VEGETATION DYNAMICS OBSERVED THROUGH MULTIPLE REMOTE SENSING SENSOR SYSTEMS AND VEGETATION INDICES	Thomas Christiansen, The University of Texas at Austin

ECOLOGY & CONSERVATION 1

Amethyst Room

Co-chairs: Helen Margaret De Klerk, Stellenbosch University and Marc Paganini, ESA

Presentation title	Speaker
SATELLITE DRIVEN DISTRIBUTION MODELS OF ENDANGERED ATLANTIC STURGEON OCCURRENCE IN THE WESTERN MID-ATLANTIC TO REDUCE HARMFUL INTERACTIONS	Matthew Breece, University of Delaware
HABITAT VALUES AND PRESSURE INDICATORS FOR PROTECTED AREAS - AN INTEGRATED HABITAT AND LAND COVER CHANGE APPROACH	Andreas Brink, European Commission
REMOTE SENSING TRAINING IN AFRICAN CONSERVATION AND ECOLOGY	Helen De Klerk, Stellenbosch University
MONITORING OF HUMAN PRESENCE AND EXPANSION IN THE SAHELO-SAHARAN ZONE – A CASE STUDY FOR NIGER BASED ON MULTI-SENSOR EARTH OBSERVATION	Thomas Esch, DLR
HABITAT USE OF MIGRATORY BIRDS: MOVEMENT ECOLOGY MEETS REMOTE SENSING	Benjamin Leutner, University of Würzburg
THE ROLE OF SPACE AGENCIES IN REMOTELY SENSED ESSENTIAL BIODIVERSITY VARIABLES	Marc Paganini, ESA

MARINE DOMAIN AWARENESS 1

Ruby Auditorium

Co-chairs: Waldo Kleynhans, CSIR and Gordon Staples, MDA

Presentation title	Speaker
OIL POLLUTION IN INDONESIAN WATERS: COMBINING STATISTICAL ANALYSES OF ENVISAT ASAR AND SENTINEL-1A C-SAR DATA WITH NUMERICAL TRACER MODELLING	Martin Gade, Universität Hamburg
DEEP LEARNING ARCHITECTURE COMPARISON FOR SHIP DISCRIMINATION IN SYNTHETIC APERTURE RADAR	Colin Schwegmann, CSIR
SMARTER THAN YOUR AVERAGE SENSOR: AIS SENSOR THAT INTELLIGENTLY RE-TRANSMITS MEANINGFUL INFORMATION DERIVED FROM RAW AIS DATA IN NETWORK LIMITED AREAS	Rory Meyer, CSIR
SURVEILLANCE OF THE SOUTH AFRICAN EEZ WITH RADARSAT-2	Gordon Staples, MDA
A DEEP LEARNING-BASED METHOD FOR HIGH-ACCURACY DETECTION OF INLAND WATERWAY VESSELS USING HIGH-RESOLUTION OPTICAL IMAGERY	Changjiang Xiao, Wuhan University

NEXTGEOSS

Emerald Auditorium

Co-chairs: Bente Lilja Bye, BLB and Tendani Lavhengwa, SANSA

Presentation title

INTRODUCTION TO THE NEXTGEOSS CONCEPT

CKAN: OPPORTUNITIES & CAPABILITIES FOR EARTH OBSERVATION DATA

SEMANTICS AND INTEROPERABILITY WITH CKAN

QUALITY OF SERVICE

CHALLENGES & OPPORTUNITIES IN IMPLEMENTING THE DATA REVOLUTION FOR SUSTAINABLE DEVELOPMENT

Speaker

Nuno Catarino, DEIMOS

Sebastian Moleski, Viderum

Joan Maso, CREAM

Gunter Schreier, DLR

Tim Haigh, EEA

SUSTAINABLE DEVELOPMENT GOALS 1

Crystal Room

Co-chairs: Alex Held, CSIRO and Graciela Metternicht, University of New South Wales

Presentation title

AN OPEN-SOURCE, MULTI-SCALAR APPROACH FOR MONITORING AND REPORTING ON LAND DEGRADATION

USE OF RADAR AND OPTICAL DATA TO SUPPORT CONSERVATION AND SUSTAINABLE UTILISATION OF MANGROVES

AN OVERVIEW OF OPERATIONAL EARTH OBSERVATIONS DATASETS FOR MONITORING SUSTAINABLE DEVELOPMENT GOALS IN SOUTH AFRICA

EARTH OBSERVATION FOR SUPPORTING AND TRACKING PROGRESS OF SUSTAINABLE DEVELOPMENT GOALS: BEST PRACTICE EXAMPLE FROM THE AUSTRALIAN TERRESTRIAL ECOSYSTEM RESEARCH NETWORK (TERN)

USE OF EARTH OBSERVATION DATA FOR PRACTICAL TARGET SETTING AND MONITORING OF PROGRESS TOWARDS LAND DEGRADATION NEUTRALITY

Speaker

Mariano Gonzalez-Roglich, Conservation International

Richard Lucas, University of New South Wales

Terence Newby, Agricultural Research Council

Graciela Metternicht, University of New South Wales

Graciela Metternicht, University of New South Wales

CROP GROWTH MODELLING 1

Onyx Room

Co-chairs: George Chirima, CSIR and John Richard Otukey, University of Kampala

Presentation title

THINKING REMOTELY, ACTING LOCALLY - VERIFYING THE UTILITY OF SENTINEL-2 AND LANDSAT 8 FOR SUSTAINABLE AGRICULTURAL DECISION MANAGEMENT IN KWA-ZULU NATAL

EVIDENZ: EARTH OBSERVATION BASED INFORMATION PRODUCTS FOR DROUGHT RISK REDUCTION AT THE NATIONAL LEVEL

EVALUATING THE INFLUENCE OF AGROMETEOROLOGICAL PARAMETERS FOR WINTER WHEAT YIELD FORECASTING

ESTIMATION OF GRASS NITROGEN CONCENTRATION USING THE INVERSION OF PROSAIL RADIATIVE TRANSFER MODEL – IN THE HETEROGENEOUS SAVANNA ECOSYSTEM – TOWARDS SEASON INDEPENDENT AND REGIONAL APPROACH

Speaker

Clement Adjorlolo, SANSA

Olena Dubovyk, University of Bonn

Zinhle Mashaba, Agricultural Research Council

Abel Ramoelo, CSIR

17:00 - 17:10 | TRANSFER TIME

17:10 - 18:40

L-BAND RADIOMETRY AND APPLICATIONS

Diamond Auditorium

Co-chairs: Jacqueline Boutin, CNRS and Yann Kerr, CESBIO CNRS

Presentation title

MONITORING EXTREME HYDROLOGICAL EVENTS USING L-BAND MICROWAVE: THE CASE OF DROUGHTS AND FLOODS

SEA SURFACE SALINITY FROM SMOS SATELLITE MISSION: MAJOR ACHIEVEMENTS AFTER 7 YEARS IN ORBIT (2010-2017)

SOIL MOISTURE VALIDATION USING IN SITU MEASUREMENTS: THE SMAP APPROACH

OPERATIONAL HIGH RESOLUTION SOIL MOISTURE FOR AGRICULTURAL APPLICATIONS

SMOS AND CLIMATE APPLICATIONS

CHARACTERISTICS OF FROZEN SOIL AND SNOW ESTIMATED USING SMOS LEVEL 3 BRIGHTNESS TEMPERATURES

TOWARDS P-BAND PASSIVE MICROWAVE SENSING OF SOIL MOISTURE

Speaker

Ahmad Al Bitar, CESBIO / CNRS

Jacqueline Boutin, LOCEAN

Andreas Colliander, California Institute of Technology

Maria Jose Escorihuela, isardSAT

Yann Kerr, CNRS

Juha Lemmetyinen, Finnish Meteorological Institute

Jeffrey Walker, Monash University

WILDFIRE 2

Amber Room 1

Co-chairs: Ivan Csizsar, NOAA/NESDIS/STAR and Charles Ichoku, NASA

Presentation title

A MULTI-TEMPORAL APPROACH TO BURN SCAR DETECTION USING SYNTHETIC APERTURE RADAR DATA

THE USE OF DLR FIREBIRD MISSION DATA FOR HOT SPOT DETECTION AND FIRE CHARACTERIZATION

ANALYZING FIRE BEHAVIOUR FROM SPACE USING MEDIUM AND HIGH RESOLUTION IR SENSORS

NASA FIRE SCIENCE AND APPLICATIONS: TECHNOLOGY, SATELLITES, AIRBORNE DATA, AND MODELS

IMPLEMENTATION OF AN AUTOMATED BURNED AREA MAPPING SYSTEM USING HISTORICAL LANDSAT TM AND ETM+ TIME SERIES DATA IN SOUTH AFRICA

Speaker

Jeanine Engelbrecht, CSIR

Doris Klein, DLR

Gernot Rucker, ZEBRIS

Amber Soja, NASA

Karen Steenkamp, CSIR

ECOLOGY & CONSERVATION 2

Amethyst Room

Co-chairs: Moses Cho, CSIR and Andrew Skidmore, University Twente

Presentation title	Speaker
ESTIMATION OF TREE DISTRIBUTION AND CANOPY HEIGHTS IN IFAKARA, TANZANIA USING UNMANNED AERIAL SYSTEM (UAS) STEREO IMAGERY	Ian Asige, RCMRD
COMBINING RED SUN-INDUCED CHLOROPHYLL FLUORESCENCE AND VEGETATION INDICES IMPROVES DIURNAL ESTIMATION OF GPP: MODELING AND VALIDATION OVER THE WINTER WHEAT CANOPIES	Linlin Guan, RADI CAS
ANALYSIS OF FOREST FRAGMENTATION BY REMOTE SENSING APPLICATION IN NEW CALEDONIA	Morgan Mangeas, IRD
UAV-BORNE AND AIRBORNE REMOTE SENSING FOR FOREST HEALTH	Magdalena Smigaj, Newcastle University
USING SPATIAL CONTEXT TO INTEGRATE LANDSAT AND SENTINEL-2 DATA FOR FOREST CHANGE MONITORING	Eliakim Hamunyela, Wageningen University and Research
TOWARDS BEHAVIOR DEPENDENT SPECIES DISTRIBUTION MODELING	Ruben Remelgado, University of Würzburg

MARINE DOMAIN AWARENESS 2

Ruby Auditorium

Co-chairs: Waldo Kleyhans, CSIR and Colin Schwegmann, CSIR

Presentation title	Speaker
THE COASTAL WATERS RESEARCH SYNERGY FRAMEWORK, FOR UNLOCKING OUR POTENTIAL FOR COASTAL INNOVATION GROWTH	Nuno Catarino, DEIMOS
BILGE DUMPING DISCRIMINATION FEATURES FROM SAR IMAGERY IN SOUTHERN AFRICA OCEANS	Lizwe Wandile Mdakane, CSIR
OH BOUY: CLASSIFICATION OF OCEAN VESSELS USING SAR AND HISTORICAL AIS FEATURES	Rory Meyer, CSIR
VESSEL DETECTION CAPABILITIES IN VIIRS SATELLITE IMAGERY	Benjamin Lebona, CSIR

HURRICANES & FLOODS

Emerald Room

Co-chairs: Bruce Chapman, Jet Propulsion Laboratory and Dechlan Pillay, NDMC

Presentation title	Speaker
A RECOVERY OBSERVATORY FOR HURRICANE MATTHEW IMPACT IN HAITI	Steven Hosford, CNES
HOW SATELLITE IS USED FOR ESTIMATING RAINFALL FOR THE SOUTH AFRICAN FLASH FLOOD GUIDANCE SYSTEM (SAFFG) AND THE SOUTHERN AFRICAN FLASH GUIDANCE SYSTEM (SARFFG)	Vanetia Phakula, SAWS
FLOOD MAPPING AND ANALYSIS IN SOUTHERN AFRICA IN PARTNERSHIP WITH THE CEOS FLOOD PILOT	Amber Soja, NASA

SUSTAINABLE DEVELOPMENT GOALS 2

Crystal Room

Co-chairs: Alex Held, CSIRO and Graciela Metternicht, University of New South Wales

Presentation title	Speaker
AFRIGEOSS INITIATIVE: STRENGTHENING USE OF EARTH OBSERVATIONS AND BRINGING GEOSS TO AFRICA	Andiswa Mlisa, GEO Secretariat
WORLD ATLAS OF DESERTIFICATION AND THE CONCEPT OF LAND PRODUCTIVITY DYNAMICS: A CONTRIBUTION TO THE UNCCD'S GLOBAL LAND OUTLOOK	Michael Cherlet, European Commission
THE CONTRIBUTION OF THE EARTH OBSERVATION PROGRAMS OF THE EUROPEAN SPACE AGENCY TO THE REALISATION OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT	Marc Paganini, ESA
THE GEOSS SOCIO-ECONOMIC AND ENVIRONMENTAL INFORMATION NEEDS KNOWLEDGE BASE (SEE-IN KB): LINKING THE SUSTAINABLE DEVELOPMENT GOALS TO EARTH OBSERVATIONS, MODELS, AND CAPACITY BUILDING	Hans-Peter Plag, Old Dominion University
AMERIGEOSS: PROGRESS AND PRIORITIES FOR EARTH OBSERVATION-INFORMED DECISIONS IN THE AMERICAS	Nancy Searby, NASA
DEVELOPING REMOTE SENSING GOOD PRACTICE GUIDANCE DOCUMENTS FOR SUB-INDICATORS OF SDG TARGET 15.3.1: LAND COVER, LAND PRODUCTIVITY AND CARBON STOCKS ABOVE AND BELOW GROUND	Neil Sims, CSIRO

CROP GROWTH MODELLING 2

Onyx Room

Co-chairs: Clement Adjorlolo, SANSA and Thuy Le Toan, CESBIO CNES

Presentation title	Speaker
CLOUD-BASED AGRICULTURAL SOLUTION: A CASE STUDY OF NEAR REAL-TIME REGIONAL AGRICULTURAL CROP GROWTH INFORMATION OVER DELMAS (MPUMALANGA, SOUTH AFRICA)	Jens Hiestermann, GeoTerra Image
HERBACEOUS BIOMASS PRODUCTIVITY DYNAMICS MONITORING AND ITS DRIVERS IN SAHELIAN CROPLANDS AND RANGELANDS TO SUPPORT FOOD SECURITY POLICIES	Louise Leroux, CIRAD
VISIBLE AND INFRARED SPECTRAL CHARACTERISATION OF CHINESE CABBAGE (BRASSICA RAPA L. SUBSPECIES CHINENSIS), GROWN UNDER DIFFERENT NITROGEN, POTASSIUM AND PHOSPHORUS CONCENTRATIONS	Bonolo Mokoatsi, University of Johannesburg
RAIN FOR AFRICA – DYNAMIC DECISION SUPPORT DATA FOR AGRICULTURALISTS	Terence Newby, Agricultural Research Council
MONITORING THE IMPACTS OF EL NIÑO ON THE EXTENT OF CULTIVATED FIELDS USING SAR DATA AROUND THE AGRICULTURAL REGIONS OF THE FREE STATE, SOUTH AFRICA	Adeline Ngie, University of Johannesburg

WEDNESDAY, 10 MAY 2017

08:30 - 10:30

PLENARY SESSION 3 | EO FOR GLOBAL CHANGE SCIENCE

Diamond Auditorium

Chair: Konrad Wessels, CSIR

Presentation title

THE CONTRIBUTION OF EARTH OBSERVATION TO GLOBAL CHANGE SCIENCE AND POLICY

GLOBAL SEA LEVEL CHANGE

GLOBAL TRENDS IN GREEN LAND COVER

GLOBAL BIOMASS ESTIMATION TO ADDRESS CARBON CYCLE

NASA'S EARTH OBSERVING MISSIONS AND THEIR CONTRIBUTION TO GLOBAL CHANGE SCIENCE

Speaker

Stephen Briggs, ESA

Johnny Johannessen, NERSC

Robert Scholes, University of the Witwatersrand

Thuy Le Toan, CESBIO CNES

Jim Adams, NASA (retired)

10:30 - 11:00 | REFRESHMENT BREAK AND POSTERS Q&A

11:00 - 12:30

EARTH EXPLORER MISSIONS

Diamond Auditorium

Co-chairs: Michael Rast, ESA and Per Erik Skrovseth, ICRSE

Presentation title

ESA'S EARTH EXPLORER MISSIONS – AN OVERVIEW OF THE RESEARCH SATELLITES OF ESA'S "LIVING PLANET PROGRAMME"

SOLID EARTH ASPECTS OF ESA'S SWARM MISSION

SMOS AFTER 7 YEARS IN ORBIT: LESSONS LEARNED, ACHIEVEMENTS AND WAY FORWARD

THE BIOMASS MISSION: QUANTIFYING BIOMASS FOR GLOBAL CARBON ASSESSMENT

ESA'S FLUORESCENCE EXPLORER (FLEX): MISSION CONCEPT AND SCIENTIFIC GOALS

POLAR SCIENCE AND OPERATIONAL SERVICES SUPPORTED BY CRYOSAT-2

THE ESA ADM-AEOLUS DOPPLER WIND LIDAR MISSION: CONCEPT, STATUS AND VALIDATION STRATEGY

Speaker

Michael Rast, ESA

Andrew Jackson, ETH Zurich

Yann Kerr, CESBIO CNRS

Thuy Le Toan, CESBIO CNES

Uwe Rascher, Forschungszentrum Jülich

Andrew Shepherd, University of Leeds

Pierre Flamant, Institut Pierre Simon Laplace

GREENHOUSE GAS

Amethyst Room

Co-chairs: Yana Gevorgyan, NOAA and Pascal Lecomte, ESA

Presentation title

REMOTE SENSING OF NO₂ OVER THE HIGHVELD: COMPARING AIRCRAFT AND SATELLITE PLATFORMS

CO₂ EMISSIONS FROM FOREST FIRES USING GOSAT DATA

THE GEO CARBON AND GHG INITIATIVE: TOWARD POLICY-RELEVANT GLOBAL CARBON CYCLE OBSERVATION AND ANALYSIS

SCIENTIFIC ACHIEVEMENTS BY GREENHOUSE GASES OBSERVING SATELLITE (GOSAT) AND FUTURE PROSPECTS FOR GOSAT-2

DETECTING AND ANALYZING GAS FLARES USING SENTINEL 3 AND FIREBIRD

Speaker

Stephen Broccardo, North-West University

Meng Guo, Northeast Normal University

Jouni Heiskanen, ICOS ERIC Head Office

Tsuneo Matsunaga, National Institute for Environmental Studies

Gernot Rucker, ZEBRIS

EO EDUCATION

Onyx Room

Co-chairs: Hilcea Ferreira, INPE and Daniel Matsapola, SANSA

Presentation title

ONLINE REMOTE SENSING EDUCATION: EXPERIENCE AT THE BRAZILIAN NATIONAL INSTITUTE FOR SPACE RESEARCH (INPE)

CAPACITY BUILDING IN GEOSPATIAL TECHNOLOGY AND ITS APPLICATIONS USING E-LEARNING AND ONLINE INTERACTIVE MODE OF CONTENTS DELIVERY IN INDIA

ONLINE REMOTE SENSING TRAINING IN NORTH AND WESTERN AFRICA: A LEADING EXPERIENCE OF CASABLANCA VLAB CENTRE OF EXCELLENCY

IMPROVING SATELLITE SKILLS USING BLENDED LEARNING

SAR-EDU - THE EDUCATION PORTAL FOR RADAR REMOTE SENSING

Speaker

Hilcea Ferreira, INPE

Harish Chandra Karnatak, Indian Institute of Remote Sensing

Nouredine Filali Boubrahmi, Météo Maroc

José Prieto, EUMETSAT

Christiane Schmuilius, Friedrich-Schiller-University Jena

12:30 - 13:30 | LUNCH

13:30 - 15:00

CLIMATE IMPACTS ON SOCIETY - COP 21 OUTCOMES: PROGRAMMATIC

Diamond Auditorium

Co-chairs: Pascal Lecomte, ESA and Jean Noel Thepaut, ECMWF

Presentation title	Speaker
Barbara Ryan	GEO Secretariat
Stephen Volz	NOAA
Stephen Briggs	ESA
Jonathon Ross	Geoscience Australia
EC EARTH OBSERVATION R&I ACTIONS TO GEO IN THE DOMAIN OF CLIMATE CHANGE	Giles Ollier, European Commission

WETLANDS MONITORING 1

Amber Room 1

Co-chairs: Max Finlayson, Institute for Land, Water & Society and Ake Rosenqvist, soloEC

Presentation title	Speaker
WETLAND MAPPING, INVENTORY AND ASSESSMENT IN THE CONTEXT OF THE SDGS	Lisa-Maria Rebelo, International Water Management Institute
DO WE HAVE ADEQUATE EARTH OBSERVATION SENSORS FOR DETECTING AND MONITORING THE SPATIAL EXTENT OF FRESHWATER ECOSYSTEMS?	Heidi Van Deventer, CSIR
GEO-WETLANDS: COLLABORATIVE DEVELOPMENT OF A GLOBAL WETLANDS OBSERVATION SYSTEM	Adrian Strauch, University of Bonn
THE JAXA KYOTO AND CARBON (K&C) INITIATIVE GLOBAL MANGROVE WATCH (GMW)	Richard Lucas, University of New South Wales
IMPLEMENTING EO-BASED WETLAND MONITORING IN AFRICA: THE GLOBWETLAND AFRICA PROJECT	Marc Paganini, ESA
DEMO-WETLANDS: COPERNICUS-BASED DETECTION AND MONITORING OF TROPICAL WETLANDS IN RWANDA	Konrad Hentze, DeMo Wetlands Project

LAND COVER MONITORING 1

Amethyst Room

Co-chairs: Agnes Begue, CIRAD and Adriaan van Niekerk, Stellenbosch University

Presentation title	Speaker
LESOTHO LAND COVER DATABASE (2015)	John Stephenson Latham, FAO
MONITORING MINING INDUCED LAND USE AND LAND COVER CHANGES IN EMALAHLENI MUNICIPALITY, SOUTH AFRICA USING REMOTE SENSING	Clement Adjorlolo, SANSA
SPATIOTEMPORAL ANALYSIS OF URBAN LAND COVER CHANGE IN KIGALI, RWANDA USING MULTITEMPORAL LANDSAT IMAGERY AND LANDSCAPE METRICS	Theodimir Mugiraneza, KTH Royal Institute of Technology
HIGH RESOLUTION LANDCOVER MODELLING WITH PLEIADES IMAGERY AND DEM DATA IN SUPPORT OF FINE SCALE LANDSCAPE THERMAL MODELLING	Mark Thompson, GeoTerra Image
INVESTIGATING SAMPLING METHODS FOR VALIDATING LAND COVER PRODUCTS	Sibonelo Dlamini, National Geo-spatial Information

MARINE & COASTAL ENVIRONMENT 1

Ruby Auditorium

Co-chairs: Arnold Dekker, CSIRO and Christo Whittle, CSIR

Presentation title	Speaker
USING LIDAR DERIVATIVES TO ESTIMATE SEDIMENT GRAIN SIZE ON BEACHES IN FALSE BAY	James Burns, CSIR
A NEW SAR CLASSIFICATION SCHEME FOR SEDIMENTS ON INTERTIDAL FLATS BASED ON MULTI-FREQUENCY POLARIMETRIC SAR IMAGERY	Martin Gade, Universität Hamburg
MONITORING COASTAL STORM EROSION AND RECOVERY USING SATELLITE IMAGES	Qingxiang Liu, University of New South Wales
ASSESSMENT OF COASTAL VEGETATION INTACTNESS IN FALSE BAY, SOUTH AFRICA, USING WV-2 IMAGERY	Melanie Lück-Vogel, CSIR
GEARING UP FOR SENTINEL-3: QUANTITATIVE VALIDATION FOR WATER RESOURCES PROTECTION	Mark Matthews, CyanoLakes

TIGER

Emerald Auditorium

Co-chairs: Benjamin Koetz, ESA and Paida Mangara, SANSA

Presentation title	Speaker
EARTH OBSERVATION IN SUPPORT OF SUSTAINABLE WATER RESOURCE MANAGEMENT, THE TIGER INITIATIVE – LOOKING AFTER WATER FOR AGRICULTURE IN AFRICA	Benjamin Koetz, ESA
ASSESSMENT OF CLIMATE EFFECT ON CROP WATER PRODUCTIVITY USING LANDSAT AND SENTINEL DATA	Nadia Akdim, Chouaib Doukkali University
EXPLORING THE JOINT POTENTIAL OF SENTINEL 2 AND 3 IN MONITORING WATER USE AND STRESS IN AFRICAN SAVANNA ECOSYSTEMS: A CASE OF THE KRUGER NATIONAL PARK, SOUTH AFRICA	Timothy Dube, University of Limpopo
APPLICATION OF SENTINEL DATA TO IMPROVE THE WATER RESOURCE MANAGEMENT OF RWANDA	Benjamin Bukombe, Szent Istvan University
SATELLITE BASED MONITORING OF INTRA-ANNUAL RESERVOIR STORAGE VOLUMES AND ITS IMPLICATIONS FOR WATER AND FOOD SECURITY: A CASE STUDY OF LAKE BAM IN BURKINA FASO	Gerald Forkuor, WASCAL
MAPPING SOIL MOISTURE CONTENT USING SENTINEL-1 AND SENTINEL-2: CASE STUDIES FROM KENYA	Felix Greifeneder, EURAC Research

GEOSS DATA SHARING IN AFRICA

Crystal Room

Co-chairs: *Simon Hodson, CODATA and Steven Ramage, GEO Secretariat*

Presentation title

THE GEOSS DATA SHARING PRINCIPLES FOR DETECTING FOREST COVER CHANGE
IMPLEMENTING THE GROUP ON EARTH OBSERVATIONS DATA MANAGEMENT PRINCIPLES: LESSONS FROM A
SCIENTIFIC DATA CENTER

Speaker

Steven Ramage, GEO Secretariat

Robert Downs, Columbia University

DATA SHARING PRINCIPLES AND THE DEVELOPMENT OF AFRICAN DATA STRATEGIES

Simon Hodson, CODATA

LEVERAGE THE GOVERNMENTAL OPEN DATA INITIATIVES: STATUS IN AFRICA

Obwaya Mogire, South Eastern Kenya University

UNIVERSAL AND UNIFIED REQUIREMENTS FOR CORE CERTIFICATION OF TRUSTWORTHY DATA REPOSITORIES

Mustapha Mokrane, ICSU World Data System

AFRICAN TEMPORAL GEO-SPATIAL DATA, APPRAISE THE PAST TO EVALUATE PLANS FOR THE FUTURE

Rolf Becker, GeoDyn Technology

TOWARDS A NATIONAL OCEANS AND COASTAL INFORMATION MANAGEMENT SYSTEM FOR SOUTH AFRICA: SYSTEM
SPECIFICATION AND DESIGN METHODOLOGY

Bryan McAlister, CSIR

GEO USER NEEDS AND OBSERVATION REQUIREMENTS

Onyx Room

Co-chairs: *Craig Larlee, GEO Secretariat and Andiswa Mlisa, Group on Earth Observations (GEO)*

Presentation title

A PROPOSED APPROACH TO IMPLEMENT THE GEO USER NEEDS AND GAP ANALYSIS PROCESS

Speaker

Andiswa Mlisa, GEO Secretariat

USER NEEDS AND GAP ANALYSIS: FROM A USER REQUIREMENTS REGISTRY TO A GEOSS KNOWLEDGE BASE LINKING
USERS TO KNOWLEDGE

Hans-Peter Plag, Old Dominion University

CONNECTING GEO GAP ANALYSIS METHODOLOGY AND RESULTS IN THE GEOSS IN-SITU DATASETS

Joan Maso, CREA

GEO'S SOCIETAL BENEFIT AREA "ENERGY AND MINERAL RESOURCES MANAGEMENT": ACHIEVEMENTS AND FUTURE
ACTIVITIES

André Obregón, GEO Secretariat

MANAGING THE CHALLENGES OF NEW ACTORS IN SPACE

Krystal Wilson, Secure World Foundation

15:00 - 15:30 | REFRESHMENT BREAK AND POSTERS Q&A

15:30 - 17:00

CLIMATE IMPACTS ON SOCIETY - COP 21 OUTCOMES: IMPLEMENTATION

Diamond Auditorium

Co-chairs: *Jane Olwoch, SASSCAL and Michael Rast, ESA*

Participants

CLIMATE CHANGE AND AIR QUALITY

Cathy Clerbaux, LATMOS

INTEGRATED OBSERVATIONAL NEEDS IN SUPPORT OF THE RIO CONVENTION

Robert Scholes, University of the Witwatersrand

Jane Olwoch

SASSCAL

Michael Rast

ESA

WETLANDS MONITORING 2

Amber Room 1

Co-chairs: *Richard Lucas, University of New South Wales and Lisa-Maria Rebelo, International Water Management Institute*

Presentation title

DECADAL CYCLIC CHANGES IN MANGROVES IN AUSTRALIA'S ICONIC KAKADU NATIONAL PARK INFORM FUTURE
IMPACTS OF CLIMATE CHANGE

Speaker

Max Finlayson, Institute for Land, Water & Society

A MULTI SCALE REMOTE SENSING APPROACH FOR MONITORING AND ASSESSING ECOSYSTEM REHABILITATION OF
MINE SITES

Renee Bartolo, Department of the Environment and Energy - ERISS

MULTI-SCALE REMOTE SENSING OF MANGROVE STRUCTURE, BIOMASS AND TOTAL CARBON STOCKS FROM INSAR,
HIGH RESOLUTION STEREO AND AIRBORNE LIDAR DATA

Richard Lucas, University of New South Wales

THE EXTENT OF MANGROVE CHANGE AND POTENTIAL FOR RECOVERY FOLLOWING CYCLONE YASI AT
HINCHINBROOK ISLAND, QUEENSLAND, AUSTRALIA

Richard Lucas, University of New South Wales

MONITORING INUNDATION DYNAMICS WITH THE NASA-ISRO SYNTHETIC APERTURE RADAR (NISAR)

Bruce Chapman, Jet Propulsion Laboratory

LAND COVER MONITORING 2

Amethyst Room

Co-chairs: *John Stephenson Latham, FAO and Konrad Wessels, CSIR*

Presentation title

COMPLEXITIES OF MULTI-TEMPORAL REMOTE SENSING IN STRONGLY SEASONAL ENVIRONMENTS AND THE NEED
FOR SENSITIVITY ANALYSIS OF SERIES DEPTH AND IMAGE SPACING

Speaker

Kelley Crews, University of Texas

THE APPLICATION OF INTEGRATED TOPOGRAPHIC DATA FOR LAND USE MAPPING: A CASE STUDY OF EDEN DISTRICT,
SOUTH AFRICA

Luncedo Ngcofe, Department of Rural Development & Land Reform

FINITE MIXTURE MODELS FOR SUB-PIXEL COASTAL LAND COVER CLASSIFICATION

Michaela Ritchie, CSIR

MAPPING PRIMATE HABITAT AND OIL PALM PLANTATIONS USING LANDSAT OLI IMAGERY AUGMENTED WITH
UNMANNED AUTONOMOUS SYSTEM PHOTOGRAPHY

Zoltan Szantoi, European Commission

PROVING THE CAPABILITY FOR LARGE SCALE REGIONAL LAND-COVER DATA PRODUCTION BY SELF-FUNDED
COMMERCIAL OPERATORS

Mark Thompson, GeoTerra Image

FROM SATELLITE IMAGES TO AGRICULTURAL SYSTEMS MAPS: A REMOTE SENSING MULTI-LEVEL OBJECT BASED
APPROACH

Agnes Begue, CIRAD

MARINE & COASTAL ENVIRONMENT 2

Ruby Auditorium

Co-chairs: Douglas Cripe, GEO Secretariat and Melanie Lück-Vogel, CSIR

Presentation title

THE GEO BLUE PLANET INITIATIVE: OCEAN AND COASTAL OBSERVATIONS FOR SOCIETAL BENEFIT

Speaker

Douglas Cripe, GEO Secretariat

MAPPING COASTAL AQUACULTURE PONDS IN ASIAN HOTSPOTS WITH HIGH SPATIAL RESOLUTION SENTINEL-1A/B SAR DATA

Marco Ottinger, University of Würzburg

DEVELOPMENT OF REGIONAL SEA SURFACE TEMPERATURE AND OCEAN COLOUR MODIS PRODUCTS FOR ECOSYSTEM MONITORING OF THE SOUTH AFRICAN WEST AND SOUTH COAST SHELF SEAS

Christo Whittle, CSIR

PUBLIC HEALTH 1

Emerald Auditorium

Co-chairs: Tiaan de Jager, University of Pretoria and Cécile Vignolles, CNES

Presentation title

CONTRIBUTION OF REMOTE SENSING TO THE BRAZILIAN CLIMATE AND HEALTH OBSERVATORY

Speaker

Christovam Barcellos, Oswaldo Cruz Foundation

A PILOT STUDY TO DELIMITATE TSETSE TARGET POPULATIONS IN ZIMBABWE

Gerald Chikowore, Department of Veterinary Sciences

FORECASTING THE EXCESS OF MALARIA CASES, MALI 2015

Jean Gaudart, Aix-Marseille University

REMOTE SENSING-BASED TIME SERIES MODELS FOR MALARIA EARLY WARNING IN MADAGASCAR

Florian Girond, Elimination 8

CONTRIBUTION OF HIGH SPATIAL RESOLUTION SATELLITE IMAGERY FOR ACCURATE ECOLOGICAL MODELING OF THE VECTORS OF ZOONOSES: PRESENTATION OF RODENT STUDIES IN THE INDIAN OCEAN

Vincent Herbreteau, IRD

ASSESSMENT OF THE RELATIONSHIP BETWEEN THE ABUNDANCE OF MOSQUITO-BORNE DISEASES' VECTORS AND MICROCLIMATIC INDICATORS DERIVED FROM EARTH OBSERVATION IMAGES

Serge Olivier Kotchi, Public Health Agency of Canada

AGRICULTURAL PRODUCTIVITY IN AFRICA

Onyx Room

Co-chairs: Tobias Landmann, ICIPE and John Odindi, University of KwaZulu-Natal

Presentation title

THE POSSIBILITY OF USING 5-METER RAPIDEYE DATA FOR MONITORING MAIZE PLANTS INFESTED BY STEM BORER

Speaker

Elfatih Mohamed Abdel-Rahman, ICIPE

MODELLING COFFEE (COFFEEA ARABICA) CROP CONDITION IN HETEROGENEOUS AGRICULTURAL LANDSCAPES USING AN INTEGRATED HIERARCHICAL MULTISENSORY APPROACH

Abel Chemura, University of Kwa-Zulu Natal

ADVANCING SATELLITE-BASED PHENOLOGY MONITORING: A CASE IN SOUTHERN AFRICA

Olena Dubovyk, University of Bonn

REMOTE SENSING BASED CROP YIELD ESTIMATION: TOWARDS IMPROVING INFORMATION AND DECISION MAKING IN DEVELOPING COUNTRIES

Gerald Forkuor, WASCAL

GEOSPATIAL APPROACH FOR DELINEATING EXTRAPOLATION DOMAINS FOR SUSTAINABLE AGRICULTURAL INTENSIFICATION TECHNOLOGIES

Francis Muthoni, IITA

TRACKING FARM MANAGEMENT PRACTICES WITH REMOTE SENSING

Jacobus Stals, GeoTerra Image

19:00 - 23:00 | SYMPOSIUM BANQUET

THURSDAY, 11 MAY 2017

08:30 - 10:30

PLENARY SESSION 4 | THE AFRICAN SPACE PROGRAM

Diamond Auditorium

Chair: to be confirmed

Presentation title	Speaker
SOUTH AFRICAN SPACE AGENCY	Val Munsami
NATIONAL AUTHORITY FOR REMOTE SENSING & SPACE SCIENCES	Islam Abou El-Magd
AFRICAN UNION COMMISSION	Hamgani Masheleni
DEPARTMENT OF SCIENCE AND TECHNOLOGY	Andiswa Mlisa
GMES AND AFRICA	Tidiane Ouattara

10:30 - 11:00 | REFRESHMENT BREAK AND POSTERS Q&A

11:00 - 12:30

SPACEBORNE SPECTROSCOPY

Diamond Auditorium

Co-chairs: Andreas Müller, DLR and Godela Rossner, DLR

Presentation title	Speaker
THE HYPERSPECTRAL SENSOR DESIS ON MUSES: PROCESSING AND APPLICATIONS	Daniele Cerra, DLR
THE CEOS FEASIBILITY STUDY FOR AN AQUATIC ECOSYSTEM IMAGING SPECTROMETER	Arnold Dekker, CSIRO
THE GERMAN HYPERSPECTRAL ENVIRONMENTAL MAPPING AND ANALYSIS PROGRAM (ENMAP). CURRENT STATUS AND APPLICATION EXAMPLES FOR THE GEOSCIENTIFIC COMMUNITY	Christian Mielke, Helmholtz-Centre Potsdam - GFZ German Research Centre for Geoscience
IMAGING SPECTROSCOPY OF FORESTED ENVIRONMENTS: A 20 YEAR PERSPECTIVE	K. Olaf Niemann, University of Victoria
ESSENTIAL BIODIVERSITY VARIABLES MEASURED BY IMAGING SPECTROMETERS – EXAMPLES FROM THE KRUGER PARK AREA	Andrew Skidmore, University Twente

GLOBAL FOREST OBSERVATION INITIATIVE 1

Amber Room 1

Co-chairs: Ake Rosenqvist, soloEO and Christophe Sannier, SIRS SAS

Presentation title	Speaker
THE GLOBAL FOREST OBSERVATIONS INITIATIVE IN SUPPORT OF DEVELOPING COUNTRIES SETTING-UP THEIR NATIONAL FOREST MONITORING SYSTEM	Ake Rosenqvist, soloEO
NATIONAL SATELLITE MONITORING SYSTEMS FOR REDD+: THE FAO APPROACH	Inge Jonckheere, FAO
NATIONAL FOREST MONITORING IN AFRICAN COUNTRIES FOR REDD+: CAMEROON AND MALAWI	Fabian Enssle, GAF AG
VALIDATION OF SAR-BASED LAND COVER AND LAND COVER CHANGE MAPS AND DETECTABILITY OF SLASH-AND-BURN ACTIVITIES IN THE KWAMOUTH REGION, MAI-NDOMBE DISTRICT, DRC	Jörg Haarpaintner, Norut - Northern Research Insitute
LANDSAT TIME SERIES ANALYSIS – THE IMPACT OF FOREST ECOSYSTEM HISTORY ON BIODIVERSITY	Wanda Graf, University of Goettingen

LAND COVER MONITORING 3

Amethyst Room

Co-chairs: Pierre Defourny, UCLouvain-Geomatics and Bulelwa Semoli, Rural Development and Land Reform.

Presentation title	Speaker
THE EAGLE CONCEPT – FRAMEWORK FOR A PARADIGM SHIFT IN LAND MONITORING	Michael Bock, DLR
THE DYNAMIC GLOBAL LAND COVER LAYER AT 100M RESOLUTION FROM COPERNICUS GLOBAL LAND	Marcel Buchhorn, VITO
USING MACHINE LEARNING AND GEOBIA FOR THE AUTOMATION OF LAND COVER CLASSIFICATION WITH A TIME SERIES OF LANDSAT AND SENTINEL 2 DATA	Wolfgang Lueck, PCI Geomatics
LACO-WIKI: AN ONLINE TOOL FOR LAND COVER VALIDATION AND AREA ESTIMATION	Linda See, International Institute for Applied Systems Analysis
IMPROVING LAND COVER/LAND USE SUPERVISED CLASSIFICATION WITH THE ADDITION OF TOPOGRAPHIC DATA OVER TSHWANE, PRETORIA	Pryaska Veramoothea, CSIR

OCEAN DYNAMICS

Ruby Auditorium

Co-chairs: Johnny Johannessen, NERSC and Mathieu Rouault, Nansen-Tutu Centre for Marine Environmental Research

Presentation title	Speaker
WAVE TRANSFORMATION ON OCEAN CURRENTS	Bertrand Chapron, IFREMER
USING THE GLOBCURRENT DATA PORTAL FOR MONITORING AND STUDYING MESOSCALE PROCESSES AND VARIABILITY	Johnny A. Johannessen, NERSC
EXTRACTION OF COASTAL OCEAN WAVE CHARACTERISTICS USING REMOTE SENSING AND COMPUTER VISION TECHNOLOGIES	Michael Johnson, Stellenbosch University
OBSERVING SURFACE CIRCULATION OF THE WESTERN MEDITERRANEAN BASIN WITH SATELLITE IMAGERY	Svetlana Karimova, University of Liege
WIND CHANGES ABOVE WARM AGULHAS CURRENT EDDIES	Mathieu Rouault, Nansen-Tutu Centre for Marine Environmental Research
THE EFFECT OF THE AGULHAS CURRENT ON ADVANCED SYNTHETIC APERTURE RADAR DERIVED WIND FIELDS	Mathieu Rouault, Nansen-Tutu Centre for Marine Environmental Research

PUBLIC HEALTH 2

Emerald Auditorium

Co-chairs: Vincent Herbreteau, IRD and Jane Olwoch, SASSCAL

Presentation title	Speaker
MODELLED HABITAT SUITABILITY OF A MALARIA CAUSING VECTOR (ANOPHELES ARABIENSIS) RELATES WELL WITH HUMAN MALARIA INCIDENCES IN ZIMBABWE	Isaiah Gwitira, University of Zimbabwe
INFLUENCE OF ENVIRONMENT ON THE SPATIAL VARIABILITY OF DENGUE OUTBREAKS AT DIFFERENT SCALES IN SOUTH PACIFIC AND NEW-CALEDONIA	Morgan Mangeas, IRD
MALARIA RISK ASSESSMENT THROUGH REMOTE SENSING AND MULTI-CRITERIA EVALUATION IN CENTRAL HIGHLANDS OF MADAGASCAR	Hobiniaina Anthonio Rakotoarison, Institut Pasteur de Madagascar
CONTRIBUTION OF REMOTE SENSING FOR MONITORING AND INVESTIGATING VECTOR-BORNE DISEASES IN CROSS-BORDER CONTEXTS - APPLICATION TO THE INTERNATIONAL BORDERS OF THE BRAZILIAN AMAZON	Emmanuel Roux, IRD
SPATIAL MODELING OF MOSQUITO POPULATION DYNAMICS: AN OPERATIONAL TOOL FOR THE SURVEILLANCE OF VECTOR-BORNE DISEASES	Annelise Tran, CIRAD
CNES ACTIVITIES IN TELE-EPIDEMIOLOGY	Cécile Vignolles, CNES

SCIENCE ACCESS TO EO DATA

Crystal Room

Co-chairs: Steven Hosford, CNES and Imraan Saloojee, SANSA

Presentation title	Speaker
ACCESS TO TERRASAR-X AND TANDEM-X MISSION DATA FOR SCIENCE	Michael Bock, DLR
ESA'S EARTHNET PROGRAM, IN VIEW OF EO INNOVATION EUROPE - ENABLING FREE SCIENCE ACCESS TO EARTH OBSERVATION DATA	Simon Petiteville, ESA
FRENCH SPACE AGENCY PROGRAMMES FOR ACCESS TO PLEIADES AND SPOT 1-5 FOR SCIENCE	Steven Hosford, CNES
THE SOUTH AFRICAN NATIONAL SPACE AGENCY ENABLING ACCESS TO COMMERCIAL EO DATA	Imraan Saloojee, SANSA
PROGRAMS FOR ACCESS COSMO-SKYMED DATA FOR SCIENCE	Simona Zoffoli, Italian Space Agency
PROGRESS ON INTERNATIONAL COORDINATION OF SATELLITE EARTH OBSERVATIONS	Jonathon Ross, Geoscience Australia

GEOGLAM 1

Onyx Room

Co-chairs: Michel Deshayes, GEO Secretariat and Andries Potgieter, University of Queensland

Presentation title	Speaker
THE GEOGLAM CROP MONITOR FOR EARLY WARNING: STRENGTHENING AGRICULTURAL DECISIONS IN COUNTRIES AT RISK OF FOOD INSECURITY	Tamuka Magadzire, FEWS NET
THE EUROPEAN MARS CROP YIELD FORECASTING AND MONITORING SYSTEMS - CONTRIBUTIONS TO GEOGLAM	Bettina Baruth, European Commission
GEOGLAM, THE CANADIAN EXPERIENCE: FROM RESEARCH TO OPERATIONAL IMPLEMENTATION OF AGRICULTURAL MONITORING	Ian Jarvis, Agriculture Canada
CROP MONITORING FOR FOOD SECURITY EARLY WARNING USING FEWS NET PROCESSES, TOOLS AND EARTH OBSERVATION DATASETS	Tamuka Magadzire, FEWS NET
BEYOND CROP PRODUCTION ESTIMATES: INTEGRATED CLIMATE, BIOPHYSICAL AND REMOTE SENSING APPROACHES	Andries Potgieter, University of Queensland
CLOUD BASED CROPWATCH:GLOBAL REMOTE SENSING MONITORING ONLINE SYSTEM	Hongwei Zeng, RADI CAS

12:30 - 13:30 | LUNCH

13:30 - 15:00

NEXT-GENERATION SAR MISSIONS

Diamond Auditorium

Co-chairs: Bruce Chapman, Jet Propulsion Laboratory and Ake Rosenqvist, soloEO

Presentation title	Speaker
NEXT-GENERATION SAR MISSIONS - RELEVANCE TO GLOBAL ENVIRONMENTAL MONITORING AND INTERNATIONAL ENVIRONMENTAL CONVENTIONS	Ake Rosenqvist, soloEO
THE ESA EARTH EXPLORER BIOMASS MISSION	Thuy Le Toan, CESBIO CNES
ALOS-2 AND ITS FOLLOW-ON SATELLITE	Masato Hayashi, Japanese Aerospace Exploration Agency
THE NASA-ISRO SYNTHETIC APERTURE RADAR (NISAR) MISSION	Bruce Chapman, Jet Propulsion Laboratory
SAOCOM MISSION OVERVIEW	Carlos Daniel Caruso, CONAE
RADARSAT CONSTELLATION MISSION	Steve Iris, CSA
THE HIGH RESOLUTION WIDE-SWATH MISSION AND WORLDSAR. THE NEXT GENERATION OF X- BAND SAR SERVICES	Juergen Janoth, Airbus Defence and Space

GLOBAL FOREST OBSERVATION INITIATIVE 2

Amber Room 1

Co-chairs: Alex Held, CSIRO and Helmut Staudenrausch, DLR

Presentation title	Speaker
NEAR REAL-TIME FOREST DISTURBANCE DETECTION USING SENTINEL-1 TIME SERIES	Stéphane Mermoz, CESBIO CNES
PROGRESS ON NEAR-REAL TIME FOREST DISTURBANCE MONITORING IN GABON FROM 2015 TO 2016 USING A COMBINATION OF LANDSAT AND SENTINEL 2 IMAGERY	Christophe Sannier, SIRS SAS
ASSESSING FOREST COVER DYNAMICS AND ECOSYSTEM SERVICES PERCEPTION IN THE ATLANTIC FOREST OF PARAGUAY: COMBINING REMOTE SENSING AND HOUSEHOLD LEVEL DATA	Emmanuel Da Ponte Canova, Kiel University
FOREST AND FOREST LOSS MAPPING WITH SAR FROM THE ENVISAT/ALOS ERA TO THE SENTINEL-1/ALOS-2 PRESENT IN THE MAI-NDOMBE DISTRICT, DRC	Jörg Haarpaintner, Norut - Northern Research Institute

LAND COVER MONITORING 4

Amethyst Room

Co-chairs: Nicky Knox, Namibia University of Science and Technology and Laven Naidoo, CSIR

Presentation title	Speaker
THE COPERNICUS GLOBAL LAND HIGH RESOLUTION HOT SPOT MONITORING PROGRAM - PROVIDING LAND COVER INFORMATION FOR PROTECTED AREAS AND BEYOND	Andreas Brink, European Commission
ANNUAL GLOBAL LAND COVER MAPS FROM THE 1990S TO 2015 FOR CLIMATE MODELLING: THE LAND COVER COMPONENT OF THE ESA CLIMATE CHANGE INITIATIVE	Pierre Defourny, UCLouvain-Geomatics
DEVELOPING A GLOBAL ONLINE TOOL TO SUPPORT GLOBAL FOREST AND NATURAL RESOURCES ASSESSMENT: COLLECT EARTH ONLINE TOOL	Pheobe Odour, RCMRD/SERVIR
AFRICA LAND COVER MAPPING AT 10 M WITH SENTINEL-2: CURRENT ACHIEVEMENTS OF THE LAND COVER COMPONENT OF THE ESA CLIMATE CHANGE INITIATIVE	Céline Lamarche, UCLouvain-Geomatics
RIGOROUS COMPARISON OF DIVERSE CLASSIFICATION ALGORITHMS: THE ACMAC PROJECT REVISITED	Rick Lawrence, Montana State University
ENABLING ANNUAL LAND COVER MAPPING ACROSS EAST AFRICA	Phoebe Oduor, RCMRD

SAVANNAHS & WOODLANDS 1

Ruby Auditorium

Co-chairs: Richard Lucas, University of New South Wales and Renaud Mathieu, CSIR

Presentation title	Speaker
REMOTE SENSING OF SAVANNA WOODLANDS AT MULTIPLE SCALES: AN AUSTRALIAN EXAMPLE	Richard Lucas, University of New South Wales
ADAPTIVE CANOPY HEIGHT MODEL PROCESSING OF LIDAR DATA FOR ESTIMATING FRACTIONAL CANOPY COVER IN SAVANNAS	Frans van den Bergh, CSIR
HIGH-RESOLUTION RGB-ONLY IMAGERY WITH OBJECT-BASED IMAGE ANALYSIS IS SUITABLE FOR ESTIMATING CROWN AREA AND ABOVEGROUND BIOMASS IN MIOMBO WOODLANDS	Paradzayi Tagwireyi, University of Zimbabwe
MAPPING AND MONITORING WOODY VEGETATION COVER FOR NAMIBIA USING LIDAR TRAINING DATA, MACHINE LEARNING AND ALOS PALSAR DATA	Konrad Wessels, CSIR
AN ABOVE-GROUND BIOMASS MAP OF AFRICAN SAVANNAHS AND WOODLANDS AT 25 METERS RESOLUTION DERIVED FROM ALOS PALSAR	Alexandre Bouvet, CESBIO
WOODY RESOURCE PATTERNS AND LAND MANAGEMENT IN THE SOUTH AFRICAN LOWVELD WITH L-BAND SAR AND LIDAR IMAGERY	Renaud Mathieu, CSIR

BIG EO DATA IN THE CLOUD 1

Emerald Auditorium

Co-chairs: Jonathon Ross, Geoscience Australia and Wolfgang Wagner, Technical University of Wien

Presentation title	Speaker
GEOSHARING ON CONNECTED PLATFORMS – SIMPLIFYING AND ENHANCING THE UTILISATION OF EO DATA FOR EXPERTS AND NON REMOTE SENSING SPECIALISTS	Ursula Benz, CloudeO AG
EARTH OBSERVATION ANALYSIS WITH SAP HANA	Hinnerk Gildhoff, SAP SE
TERRADUE CLOUD PLATFORM - ADVANCING EARTH SCIENCE COLLABORATIVELY	Pedro Gonçalves, Terradue
EXPLOITATION PLATFORMS IN THE EUROPEAN EARTH OBSERVATION PAYLOAD DATA GROUND SEGMENT	Sveinung Loekken, ESA
SENTINEL HUB - NEXT GENERATION PLATFORM FOR SATELLITE IMAGERY APPLICATIONS	Grega Milcinski, Sinergise
FOG COMPUTING PERSPECTIVES IN CONNECTION WITH THE CURRENT GEOSPATIAL STANDARDS	Evgeny Panidi, St Petersburg State University

AUTONOMOUS AERIAL VEHICLES

Crystal Room

Co-chairs: Vincent Ambrosia, NASA / CSUMB and Karen Joyce, James Cook University

Presentation title	Speaker
AN OPERATIONAL RPAS PROGRAM FOR ENVIRONMENTAL MONITORING IN NORTHERN AUSTRALIA	Renee Bartolo, Department of the Environment and Energy - ERISS
FLUID LENSING & APPLICATIONS TO REMOTE SENSING OF AQUATIC ENVIRONMENTS	Ved Chirayath, NASA
OUTCOMES OF THE FOWLERS GAP UNMANNED AIRBORNE VEHICLE WORKSHOP (2016), NSW, AUSTRALIA	Adrian Fisher, The University of Queensland
SMALL UNMANNED AIRCRAFT SYSTEMS IN CORAL REEF ENVIRONMENTS: FROM PROMISE TO REALITY	Karen Joyce, James Cook University
COMPARISON OF LITHOLOGICAL MAPPING RESULTS FROM AIRBORNE HYPERSPECTRAL VNIR-SWIR, LWIR AND COMBINED DATA	Derek Rogge, DLR
DETERMINATION OF THE PRESENT VEGETATION STATE OF A WETLAND WITH UAV IMAGERY	Marinus Axel Boon, University of Johannesburg

GEOGLAM 2

Onyx Room

Co-chairs: Bettina Baruth, European Commission and Andries Potgieter, University of Queensland

Presentation title	Speaker
GEOGLAM, THE GLOBAL AGRICULTURAL MONITORING INITIATIVE OF GEO, THE GROUP ON EARTH OBSERVATIONS	Michel Deshayes, GEO Secretariat
CRAFT: LINKING SPATIAL DATA WITH SIMULATION MODELS AND CLIMATE FORECASTS FOR CROP YIELD FORECASTING	Gerrit Hooenboom, University of Florida
RICE MONITORING USING SAR DATA: TOWARDS OPERATIONAL DATA EXPLOITATION	Thuy Le Toan, CESBIO CNES
THE CASE FOR AFRIGAM (A CO-ORDINATION, DATA ACCESS, CAPACITATING AND EVIDENCE BASED DECISION MAKING SUPPORT INITIATIVE FOR AFRICAN AGRICULTURAL MONITORING)	Terence Newby, Agricultural Research Council
PROBABILISTIC FORECASTING OF CROP YIELD ACROSS CANADA UNDER ENVIRONMENTAL UNCERTAINTY	Nathaniel Newlands, Agriculture and Agri-Food Canada
OPERATIONAL CROP AREA STATISTICS EXTRACTED FROM LANDSAT IMAGERY ON GOOGLE EARTH ENGINE	Curt Reynolds, United States Department of Agriculture

15:00 - 15:30 | REFRESHMENT BREAK AND POSTERS Q&A

15:30 - 17:00

COMMERCIAL EO 1

Diamond Auditorium

Co-chairs: Lee Annamalai, CSIR and Peter Schaadt, DLR

Presentation title	Speaker
PRESENT AND FUTURE SOUTH AFRICAN EARTH OBSERVATION PLATFORMS	Niki Steenkamp, Denel Spaceteq
PLANET'S SUBSCRIPTION APPROACH TO ACCESSING DAILY, HIGH RESOLUTION COVERAGE OF THE EARTH	John Ahlrichs, Planet
NOVEL ENVIRONMENTAL MONITORING AND IMAGERY EXPLOITATION CONCEPTS OF THE URTHECAST CONSTELLATIONS	Rao Ramayanam, Urthecast
PAYLOADS WITH LIVE INTERNET ACCESS AND COMPLEMENTARY SATELLITE FLEET	Jens Eickhoff, Airbus Defence and Space
FUTURE MULTI-SENSOR EO CONSTELLATIONS	Sias Mostert, SCS Aerospace Group

FOREST BIOMASS FROM SPACE

Amber Room 1

Co-chairs: Thuy Le Toan, CESBIO CNES and Renaud Mathieu, CSIR

Presentation title	Speaker
MONITORING STRUCTURE AND ABOVE-GROUND CARBON STORAGE IN AFROTEMPERATE FOREST PATCHES, KWAZULU-NATAL, SOUTH AFRICA	Jolene Fisher, University of Witwatersrand
CARBON ASSESSMENT USING EARTH OBSERVATION AND CARBON MODELS IN AFRICA	Thuy Le Toan, CESBIO CNES
APPLICATION OF A SEMI-EMPIRICAL MODEL IN THE ESTIMATION OF SAVANNA BIOMASS, USING HYPER-TEMPORAL C-BAND DATA	Russell Main, CSIR
MONITORING ABOVEGROUND WOODY BIOMASS STOCKS IN DIFFERENT FOREST TYPES WITH L- BAND ALOS 2 PALSAR 2 DATA	Kuhle Siseko Ndyamboti, CSIR
INTEGRATION OF MULTIPLE REMOTE SENSING OBSERVATIONS TOWARDS ASSESSING FOREST CARBON STOCKS OF 2010	Maurizio Santoro, Gamma Remote Sensing

SAVANNAHS & WOODLANDS 2

Ruby Auditorium

Co-chairs: Richard Lucas, University of New South Wales and Renaud Mathieu, CSIR

Presentation title	Speaker
A MULTI-SENSOR AND MULTI-TEMPORAL APPROACH TO VEGETATION STRUCTURE MAPPING – RESULTS FROM THE ARS AFRICAE EXPERIMENT AT THE SKUKUZA FLUX TOWER	Christiane Schmillius
USING MULTI-ANGULAR REMOTE SENSING TO ANALYSE CHANGES IN DRY WOODLAND STRUCTURE	Nicky Knox
THE PRODUCTION OF PAST DEFORESTATION MAPS OF THE BRAZILIAN CERRADO TO SUPPORT A PARTIAL FREL SUBMISSION WITHIN THE BRAZILIAN REDD+ STRATEGY	Dalton Valeriano
MONITORING FOREST DEGRADATION IN THE TROPICAL DRY FORESTS OF SOUTH-CENTRAL AFRICA	Nicky Knox
OPTIMAL PHENOLOGICAL PERIOD FOR ESTIMATING WOODY COVER USING MODIS IMAGERY	Moses Azong Cho
THE WOODY AND HERBACEOUS CONSTITUENTS OF MODIS LAI AND THEIR APPLICATION IN UNDERSTANDING FIRE REGIMES AND HERBIVORY IN AFRICA	Milkah Kahiu

BIG EO DATA IN THE CLOUD 2

Emerald Auditorium

Co-chairs: Ursula Benz, CloudEO AG and Sveinung Loekken, European Space Agency

Presentation title	Speaker
DIGITALGLOBE - CHANGING THE WORLD WITH CLOUD, CROWD AND GEOSPATIAL BIG DATA	Alex Fortescue, DigitalGlobe
CODE-DE - A COPERNICUS DATA AND EXPLOITATION PLATFORM FOR GERMANY	Andreas Müller, DLR
THE AUSTRALIAN GEOSCIENCE DATA CUBE, A PLATFORM FOR EARTH OBSERVATION SCIENCE AND INNOVATION	Jonathon Ross, Geoscience Australia
DEALING WITH AND EXPLOITING BIG EARTH OBSERVATION DATA	Geoff Sawyer, EARSC
SENTINEL-1 DATA PROCESSING AT THE EODC EARTH OBSERVATION DATA CENTRE FOR WATER RESOURCES MONITORING	Wolfgang Wagner, Technical University of Wien
DISCUSSION: FEDERATION OF EARTH OBSERVATION CLOUD PLATFORMS	Wolfgang Wagner, Technical University of Wien

GEO IN-SITU OBSERVATION NETWORKS

Crystal Room

Co-chairs: Joan Maso, CREAM and Osamu Ochiai, GEO Secretariat

Presentation title	Speaker
GEO IN SITU FOUNDATIONAL TASK IN 2017-2019	Osamu Ochiai, GEO Secretariat
IN-SITU OBSERVATIONS: COORDINATION NEEDS AND BENEFITS	Hans-Peter Plag, Old Dominion University
THE GLOBAL GEODETIC OBSERVING SYSTEM	Richard Gross, NASA
LINKING GLOBAL SCALE REMOTE SENSING AND IN SITU MONITORING PROGRAMMES – GEO AND ILTER	Herbert Haubold, Environment Agency Austria
BUILDING A ROBUST AND COMPREHENSIVE IN SITU ENVIRONMENTAL OBSERVATION NETWORK IN A DEVELOPING ECONOMY: CHALLENGES AND CRITICAL SUCCESS FACTORS	Johan Pauw, SAEON
EUROPEAN NETWORK OF EARTH OBSERVATION NETWORKS FOR IN-SITU COORDINATION IN EUROPE	Joan Maso, CREAM
IN-SITU LONG-TERM AND MULTIDISCIPLINARY OBSERVATION NETWORKS AND SATELLITE ECOLOGY CONCEPT FOR TERRESTRIAL BIODIVERSITY AND ECOSYSTEM	Hiroyuki Muraoka, Gifu University

GEOGLAM SENTINEL-2

Onyx Room

Co-chairs: Benjamin Koetz, ESA and Terence Newby, Agricultural Research Council

Presentation title

SENTINEL-2 FOR AGRICULTURE: SENTINEL-2 OPERATIONAL EXPLOITATION FOR SUPPORTING NATIONAL AND GLOBAL CROP MONITORING

SEN2-AGRI NATIONAL DEMONSTRATION IN UKRAINE

"SENTINEL-2 FOR AGRICULTURE" TO SUPPORT NATIONAL AGRICULTURE MONITORING: DEMONSTRATION IN MALI

SENTINEL 2 FOR AGRICULTURE: PROVISIONAL RESULTS FROM THE SOUTH AFRICAN NATIONAL VALIDATION SITE

MAPPING SMALLHOLDER AGRICULTURE USING SIMULATED SENTINEL-2 DATA; OPTIMIZATION OF A RANDOM FOREST-BASED APPROACH AND EVALUATION ON MADAGASCAR SITE

Speaker

Pierre Defourny, UCLouvain-Geomatics

Andrii Kolotii, Space Research Institute

Nicolas Bellemans, Université Catholique De Louvain

Terence Newby, Agricultural Research Council

Agnes Begue, CIRAD

17:00 - 18:00 | POSTER SESSION

18:00 - 19:00 | PUBLIC LECTURE (*Diamond Auditorium*)

FRIDAY, 12 MAY 2017

08:30 - 10:30

PLENARY SESSION 5 | TRENDS IN COMMERCIAL EO

Diamond Auditorium

Chair: *Lee Annamalai, CSIR*

Panellists

John Ahlrichs, Planet
Corne Eloff, Airbus Defence and Space
Lawrie Jordan, ESRI
Sias Mostert, SCS Aerospace Group
Steven Ramage, GEO Secretariat
Geoff Sawyer, EARSC
Gordon Staples, MDA

10:30 - 11:00 | REFRESHMENT BREAK

11:00 - 12:30

COMMERCIAL EO 2

Diamond Auditorium

Co-chairs: *Lee Annamalai, CSIR and Peter Schaadt, DLR*

Presentation title	Speaker
UNLOCKING THE VALUE OF HIGH RESOLUTION, ACCURACY, SPECTRUM AND REVISIT	Alex Fortescue, DigitalGlobe
THE FUTURE AIRBUS DEFENCE AND SPACE OPTICAL AND SAR SATELLITE CONSTELLATION, A VISION FOR 2020 AND BEYOND	Corne Eloff, Airbus Defence and Space
SERVICING THE MARKET WITH HIGH RESOLUTION DATA - A PLUG FOR SERVICES & INFORMATION - NOT IMAGES	Peter Hausknecht, Earth-i Ltd
CLAIRE: A CANADIAN SMALL SATELLITE MISSION FOR MEASUREMENT OF GREENHOUSE GASES	James Sloan, University of Waterloo
SURVEY ON THE HEALTH & WELL BEING OF THE AFRICAN EO COMPANIES	Tsehaie Woldai, University of the Witwatersrand
DEIMOS IMAGING: CURRENT MEDIUM AND HIGH RESOLUTION SATELLITES FOR AGRICULTURE AND ENVIRONMENTAL MAPPING AND MONITORING	Raquel Chivato, Deimos Imaging

WETLAND DYNAMICS UNDER GLOBAL CHANGE

Amber Room 1

Co-chairs: *Ursula Gessner, DLR and Brian O'Connor, WCMC*

Presentation title	Speaker
GEO-WETLANDS: A NEW FRAMEWORK FOR COLLABORATIVE MAPPING AND MONITORING OF GLOBAL WETLANDS	Adrian Strauch, University of Bonn
HOW COORDINATION OF EARTH OBSERVATION DATA CAN HELP PROTECT THE WORLD'S VANISHING WETLANDS: PROGRESS ON THE SWOS PROJECT	Brian O'Connor, WCMC
DYNAMICS OF GLOBAL WETLANDS REFLECTED IN THE DAILY TIME SERIES PRODUCT GLOBAL WATER PACK	Ursula Gessner, DLR
ASSESSING THE SPATIO-TEMPORAL CHARACTERISTICS OF WETLANDS ALONG THE KLIP RIVER USING REMOTE SENSING TECHNIQUES	Lutendo Zwedzi, University of Johannesburg
LONG-TERM LAND COVER AND LAND USE CHANGES IN THE KILOMBERO FLOODPLAIN, TANZANIA	Konrad Hentze, DeMo Wetlands Project
APPLICATION OF EARTH OBSERVATION IN MAPPING MANGROVE COVER WITHIN WESTERN INDIAN OCEAN	Edward Ouko

SAVANNAHS & WOODLANDS 3

Ruby Auditorium

Co-chairs: *Phoebe Odour, RCMRD/SERVIR and Solomon Tesfamichael, UJ*

Presentation title	Speaker
VALIDATION OF THE FINAL TANDEM-X DEM IN THE LOWVELD SAVANNA, SOUTH AFRICA, USING HIGHLY ACCURATE DIFFERENTIAL GNSS AND TLS GROUND MEASUREMENTS	Jussi Baade, Friedrich-Schiller-University Jena
LEVERAGING TRADITIONAL FIELD SAMPLING, SPECTRAL UNMIXING, AND ALLOMETRIC MODELING IN MULTI-SCALE QUANTIFICATION OF WOODY BIOMASS IN KALAHARI SAVANNA ECOSYSTEMS	Thoralf Meyer, University of Texas
GUIDELINES FOR UPSCALING COUNTRY-WIDE WOODY FRACTIONAL COVER - RECOMMENDED AMOUNT OF FIELD PLOTS AND AIRBORNE LIDAR DATA COVERAGE REQUIRED ACROSS SOUTH AFRICA	Laven Naidoo, CSIR
ADDRESSING THE RELATIONSHIPS BETWEEN LAND COVER CHANGE AND FIRE IN MIOMBO FORESTS IN GURUÉ, CENTRAL MOZAMBIQUE	Natasha Ribeiro, Eduardo Mondlane University
MAPPING FRACTIONAL WOODY COVER IN SEMI-ARID SAVANNAHS: DATA MINING BULK-PROCESSED LANDSAT AND ALOS PALSAR DATA	Elias Symeonakis, Manchester Metropolitan University
OPTIMISATION OF SAVANNAH FRACTIONAL WOODY VEGETATION COVER MAPPING USING OPTICAL AND RADAR DATA	Elias Symeonakis, Manchester Metropolitan University

DIGITAL EARTH

Emerald Auditorium

Co-chairs: Terence van Zyl, University of the Witwatersrand and Changlin Wang, RADI, CAS

Presentation title	Speaker
OPEN SOURCE TECHNOLOGY FOR LARGE SCALE OPEN DATA SHARING	Bente Lilja Bye, BLB
FRAMEWORK AND ARCHITECTURE FOR NEXT GENERATION DIGITAL EARTH	Xiangtao Fan, RADI CAS
THE SUSTAINABLE DEVELOPMENT GOALS A BASIS TO DEVELOP DIGITAL EARTH	Mario Hernandez, Future Earth Engagement Committee
HYDROLOGY THEMATIC EXPLOITATION PLATFORM (H – TEP): CLOUD - BASED INTEGRATED DATA ANALYSIS AND MODELLING SYSTEM	Massimo Menenti, Delft University of Technology
UNDERSTANDING TEMPORAL AND SPATIAL VARIATION OF SOIL AVAILABLE NUTRIENTS UNDER UNIFORM FERTILIZATION CONDITION BY INTEGRATING WOFOST MODEL AND TIME SERIES SATELLITE DATA	Jihua Meng, RADI CAS
GEOSPATIAL BIG DATA STREAMING: ARCHITECTURAL CONSIDERATIONS	Terence van Zyl, University of the Witwatersrand

EO TO MANAGING RISK

Crystal Room

Co-chairs: Steven Hosford, CNES and Ivan Petiteville, ESA

Presentation title	Speaker
ACCURACY ASSESSMENT OF TANDEM-X I-DEMS OVER THE UK	Jan-Peter Muller, University College London - Mullard Space Science Laboratory
GEO DISASTER RESILIENCE ACTIVITIES	Ivan Petiteville, ESA
SATELLITE MODELING AND MONITORING FOR DISASTER RISK REDUCTION IN SOUTHERN AFRICA AND LATIN AMERICA	Nancy Searby, NASA
GP-STAR: GLOBAL PARTNERSHIP USING SPACE-BASED TECHNOLOGY APPLICATIONS FOR DISASTER RISK REDUCTION	Peter Zeil, Spatial Services
THE USE OF REMOTE SENSING TECHNOLOGY TO UNDERSTAND SNOWFALL RISK IN SOUTH AFRICA	Dechlan Pillay, NDMC

LAND DEGRADATION

Onyx Room

Co-chairs: Michael Cherlet, European Commission and Konrad Wessels, CSIR

Presentation title	Speaker
EARTH OBSERVATION TECHNOLOGY FOR MONITORING LAND DEGRADATION IN SOUTH AFRICA: A SYNTHESIS FOR THE DEPARTMENT OF ENVIRONMENTAL AFFAIRS UNCCD FRAMEWORK	George Chirima, CSIR
IDENTIFYING DRYLAND DEGRADATION NOT CAUSED BY CLIMATE CHANGES	Jason Evans, University of New South Wales
LARGE-SCALE INDICATIVE MAPPING OF SOIL RUNOFF	Evgeny Panidi, St Petersburg State University
AN OPERATIONAL PROCESSING CHAIN FOR MEDIUM RESOLUTION EARTH OBSERVATION DATA TO ESTABLISH DATA CUBES FOR ENVIRONMENTAL MONITORING IN SOUTHERN AFRICA	Achim Röder, Trier University
EARTH OBSERVATION ASSISTED DECISION SUPPORT TOOLS FOR EVIDENCE BASED DECISION MAKING	Tor Vagen, ICRAF
MULTI-SENSOR INTEGRATED AGRICULTURAL DROUGHT MONITORING AND ASSESSMENT	Xiang Zhang, Wuhan University

GEO WORK PROGRAMME SYMPOSIUM 1

Amethyst Room

12:30 - 13:30 | CLOSING CEREMONY (*Diamond Auditorium*)

14:00 - 17:00

GEO WORK PROGRAMME SYMPOSIUM 2

Amethyst Room

SATURDAY, 13 MAY 2017

08:30 - 17:00

GEO WORK PROGRAMME SYMPOSIUM 3

Amethyst Room