

Wednesday, 16th August 2023

Session-7: Land-Cover/Land-Use Changes and Fires

Session Chairs: Garik Gutman¹, Krishna Vadrevu² and Chris Justice³

¹NASA Headquarters, Washington, DC, USA

²NASA Marshall Space Flight Center, Huntsville, AL, USA

³University of Maryland College Park, MD, USA

Agenda

Keynote Presentation

2:00: *NASA Land-Cover/Land-Use Change (LCLUC) – Focus on South America* - Garik Gutman (NASA Headquarters, Washington DC, USA)

Technical Presentations (15-minute presentation and 5-minute discussion)

2:45: #164525 - *A Cloud-Based SAR-Optical Data Approach for Land Use And Land Cover Classification in a Tropical Area of Brazil* - Victor Hugo Rohden Prudente¹, Meha Jain², Haron Abrahim Magalhães³, Maristela Ramalho⁴, Marcos Adami⁵, Ieda Del’Arco Sanches⁶ (^{1,2} School for Environment and Sustainability - SEAS, University of Michigan (UofM), USA; ^{3,4} Brazilian Agricultural Research Corporation, Embrapa Roraima, Brazil, ^{5,6} Postgraduate Program in Remote Sensing, Earth Observation and Geoinformatics Division, National Institute for Space Research, Sao Jose dos Campos, Brazil)

3:05: #164475 - *Monitoring and Alerting Land Use and Land Cover Change for Decision-Making Using Earth Observations* - Stephanie A. Jiménez¹, Brian Zutta², Adeandro Mota³ (¹University of Alabama in Huntsville, Alabama, USA; ²SERVIR Science Coordination Office, Marshall Space Flight Center, Alabama, USA; ³Spatial Informatics Group, California, USA; ³Institute of Agricultural and Forest Management and Certification (Imaflora), Brazil)

3:25: #164627 - *Use of Fire for Land Cover Changes (A Proposal)* - María Isabel Cruz López (National Commission for the Knowledge and Use of Biodiversity, México)

3:45 #164667 - *Advances in Fire detection Comparisons* - Fabiano Morelli¹, Victorino, P.² and Paulo Cunha² - ¹Instituto Nacional de Pesquisas Espaciais, SJC, Brazil; ²Instituto Nacional de Pesquisas Espaciais, Brazil

Tea Break

4:05-4:30

4:30 #164362 - *Fire Propagation Hazard Index (FPHI) for Argentina* - Laura P. Zalazar¹, Nicolás A. Mari² - ¹Instituto de Diversidad y Ecología Animal (IDEA), Córdoba, Argentina; ²Instituto Nacional de Tecnología Agrop667ecuaría (INTA), Córdoba, Argentina

4:50 #164657- *Time Series Analysis of Environmental Variables to Characterize Fire Risk – The Climate Risk Indices From Space Platforms (CRISP)* - Gerardo Lopez Saldana, Assimila Ltd., Reading Enterprise Center, University of Reading, UK

5:10

Adjourn

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Agenda

Keynote Presentation

9:30: *GEOGLAM and NASA HARVEST Agriculture Programs - Focus and Priorities* – Chris Justice (University of Maryland College Park, MD, USA)

Technical Presentations (15-minute presentation and 5-minute discussion)

10:00: **#163936** - *Trajectories of Losses and Gains Of Soybean Cultivation During Multiple Time Intervals In Western Bahia, Brazil* - Robert Gilmore Pontius Jr¹, Thomas Bilintoh¹, Gustavo de L. T. Oliveira¹, and Julia Z. Shimbo⁴ (¹Clark University, Worcester MA, USA; ²IPAM, Brasília)

10:20

Tea Break

11:00: **#164373** - *Crop Species Mapping to Understand the Agricultural Impacts of Conservation Policy in Paraguay* - Kendra Walker, Robert Heilmayr, Atahualpa Ayala and Lauren Sharwood (Conservation Economics Lab, University of California at Santa Barbara, USA)

11:20: **#163758** – *Comparative Space-Temporal Study Of The Spectral Response Of The Flora Of The Apa Of The Curu River Estuary (Ceará) and Surroundings Using Landsat Images* - Jorgeana de Almeida Jorge Benevides¹, Anderson da Cruz Silva², Daniel Jorge Almeida Benevides³, Luis Ernesto Arruda Bezerra⁴, Carlos Sérgio Rodrigues da Silva⁵ (¹Doutoranda do Programa de Pós-graduação em Ciências Marinhas Tropicais da Universidade Federal do Ceará (UFC), Brazil; ²Mestre em Geografia, Universidade Estadual do Ceará (UECE); ³Bacharel em Engenharia da Computação, Universidade Federal do Ceará (UFC); ⁴Instituto de Ciências do Mar (LABOMAR),

Universidade Federal do Ceará; ⁵ Doutorando do programa de Pós-graduação em Matemática da Universidade Federal do Ceará (UFC)

11:40: #163183 - *Burned Area Detection Using Convolutional Neural Networks And Sentinel-2 in Manacacias Natural Park* - Jesús A. Anaya¹, Pratyush Tripathy², Martin Reinhardt³ (¹Universidad de Medellín, Carrera; ²University of California, Santa Barbara Department of Geography, USA; ³ Universität Leipzig, Germany)

12:00: #164490 - *An Inter-American Capacity Exchange Network for Addressing Regional, National, and Local Challenges Associated with Land Cover / Land Use Change and Fire* - Natalia Bermudez¹, Nancy Searby², Eric R. Anderson¹, Africa Flores¹, Lauren Childs-Gleason³, Robert Chen⁴ (¹SERVIR, Alabama, ²NASA Headquarters, ³DEVELOP, ⁴Center for International Earth Science Information Network/CIESIN; all USA)

12:20: #164537 - *Integration Of Decision Support Systems (DSS) In Forest Fire Management In Latin America And Africa* - Alexander Ariza Pastrana¹, Juan Carlos Villagrand², Marina Robredo Irizar³ (¹Visiting Scientist of the UN-SPIDER Program; ²Programme Officer Head, UN-SPIDER Bonn Office UN-SPIDER Programme Office for Outer Space Affairs United Nations Bonn, Germany; ³Project Management GeoWay, Berlin, Germany)

Adjourn

GOFC-GOLD RedLaTIF Network Meeting

Thursday, 17th August, 2023

2:00-5:00pm

Closed Door Meeting

Training Session (Open to All)

Friday, 18th August, 2023

2:00-5:00 pm

Satellite Remote Sensing of Fires – Priorities in South American Countries

Nicolas Mari¹, Fabiano Moreli² and Isabel Cruz³

¹Instituto Nacional de Tecnología Agrop667ecuaría (INTA), Córdoba, Argentina

²INPE, Brazil

³National Commission for the Knowledge and Use of Biodiversity, México
