

2020 GIS in Education and Research Conference

Day 1 - March 4

Board Room

Conservation and Management

10:05 Validation of a Forest Insect Infestation Model with the Method of 3-Map Comparison at Multiple Resolutions

Saeed Harati
Université de Montréal

10:25 Application of the Generalized Linear Mixed Models with Different Spatial Effects to Analyze the Spread of the Emerald Ash Borer in Southern Ontario

Adam Zhong
York University

10:45 GIS and Multi-Source Remote Sensing Data Based Urban Tree Species Mapping Using a Fusion Approach

Qian Li
York University

11:10 Case of Study: Millar Western Forest Company LiDAR Streams Classification – Whitecourt, Alberta

Paul Benalcazar
Lakehead University

11:30 Who's Responsible for Managing the Lake?: A GIS Analysis of Lake Athabasca

Danielle Scepanovic
Fleming College

Spatial Ecology

13:10 Home Range Analysis of Feral Swine in Oklahoma, USA

Jack McIlraith
Western University

13:30 Spatial Interactions between White-Tailed Deer and Hunters in Love County, Okla.

Rhiannon Kirton
University of Western Ontario

13:50 Evaluating Potential for Salamander Reintroduction ~ Vernal Pools and Connectivity

Sarah Bencic
Trent University

Urban Ecology

14:15 Using a Story Map as a Community Engagement Tool to Enhance Pollinator Conservation in Hamilton, Ont.

Briann Dorin
York University

14:35 The Impact of Spatial Scale: Exploring Urban Butterfly Abundance and Richness Patterns Using Multi-Criteria Decision Analysis and Principal Component Analysis

Emily Hazell
Ryerson University

14:55 The Impact of Urban Agriculture on Food Accessibility in the McQuesten Neighbourhood of Hamilton, Ontario

Nicole Langdon
McMaster University

Soil and Vegetation

15:30 Mapping Erosion and Deposition in an Agricultural Landscape with UAV SfM-MVS

Benjamin Meinen
University of Waterloo

15:50 Improvement of Soil Texture Classification Using LiDAR Data

Rory Pittman
York University

16:10 Evaluating Vegetation Change in a Subarctic Catchment through Fusion of Remotely Sensed Data

Sean Leipe
McMaster University

Committees Room

Demo Session

10:05 Applying Data Science Tools in ArcGIS Insights

Dr. Tasos Dardas
Esri Canada

Workshop

13:10 Applied Deep Learning in ArcGIS Pro & Python

Dr. Tasos Dardas
Esri Canada

Historical Landscapes

15:30 The Battle of Hastings, A Cartographic Narrative

Christopher Macdonald Hewitt
University of Western Ontario

15:50 GIS in Surface Survey and Excavation: The Metaponto Archaeological Project

Christine Davidson
McMaster University

Patrick DeLuca
McMaster University

16:10 Moving Archaeology Forward: New Methods and Tools for Landscape Archaeology

Todd Wong
McMaster University

Debates Room

Data Modelling

10:05 Urban Tree Detection and Mapping Using Airborne LiDAR

Connie Ko
York University

10:25 Measuring Coastal Wetland Area and Volume at Five Lake Levels in Eastern Georgian Bay

Sherry Chen
McMaster University

10:45 Developing Low Impact Development (LID) Site Selection Tool Using Model Builder and Python

Sahereh Kaykhosravi
York University

11:10 Study on Urban Flood Scenarios Using Flood Modeling and GIS

Boyu Feng
University of Western Ontario

11:30 Discrete Global Grid Systems: An Emerging Data Model for Science/Community Integration

Colin Robertson
Wilfrid Laurier University

11:50 Distributed In-Memory Spatio-Temporal Query Processing

Suprio Ray
University of New Brunswick

Workshop

13:10 Building Android Apps for Smartphones and Tablets

Dr. Hossein Hosseini
Esri Canada

Active Transportation

15:30 A Child's Space-Time Continuum? Spatiotemporal Analysis of How Children Use Their Neighbourhoods

Malcolm Little
Western University

15:50 ActivScore: A Physical Activity Score for Nova Scotia

Lilian Barraclough
University of King's College

16:10 How Affordable Is Walking: Linking Walkability Measures to Housing Costs

Nicholas Martino
University of British Columbia

East Common Room

Workshop

10:05 Enhancing Geostatistical Analyses with the R-ArcGIS Bridge

Dr. Mike Leahy
Esri Canada

Workshop

13:10 Bringing GIS Analysis to Life using Python Notebooks

Dr. Mike Leahy
Esri Canada

Demo Session

15:30 Developers

Dr. Tasos Dardas
Esri Canada

Great Hall

Accessibility

- 10:05 A Look at Canadians Accessibility to Healthy Food Retailers Using Food Retail Data from OpenStreetMap and Income Data from Statistics Canada
Zahra H. Mohamed
University of Toronto - St. George
- 10:25 Transit Accessibility Analysis in ArcGIS Pro: A Case Study of Code, Functions, and Performance

Christopher D. Higgins
University of Toronto Scarborough
- 10:45 Using GIS to Examine the Socioeconomic Benefits of the Ontario Line

Jeff Allen
University of Toronto - St. George

Transportation

- 11:10 GIS-Based School Transportation Model for Swing Site in Vancouver

Andres Baez
Morrison Hershfield
- May Panikom
Morrison Hershfield
- 11:30 Designing a Bus Bridging Tool for Team iCity

Olufunbi Disu-Sule
OCAD University
- Alaa Itani
- 11:50 Designing eBus Dashboard Tools for the CUTRIC Project

Jacob Cram
OCAD University
- Olufunbi Disu-Sule
OCAD University

Air Quality

- 13:10 Does Air Pollution in Global Megacities Fit an Environmental Kuznets Curve?

Ayesha Hassan
University of Toronto Mississauga
- 13:30 A Land-Use Regression Approach for the Spatial Modeling of Ambient Air Pollution in the City of Hamilton

Felix Massey
University of Toronto Mississauga
- 13:50 Spatial Distribution of Air Pollutants Near Roadways

Siliang Cui
University of Toronto Mississauga
- Matthew Adams
University of Toronto Mississauga

Human and System Health

- 14:15 Investigating the Relationship between Environmental Cues and Spatial Memory in Real-World Navigation Using Virtual-Reality
Delaram Farzanfar
York University
- 14:35 Extreme Heat Cooling Centres in Downtown Hamilton

David Zaslavsky
McMaster University

14:55 Measuring Toronto's Vital Signs Through Global and Local Ideal-Point Analysis

Mayah Obadia
Ryerson University

Food, Behaviour and Place

15:30 Signs with a Side of Fries: Using ArcGIS Pro to Analyze Exposure to Outdoor Ads among Teenagers in London, Ontario

Alexander Wray
Western University

15:50 Association between Time-Weighted Activity Space-Based Exposures to Fast-Food Outlets and Fast-Food Consumption among Young Adults in Urban Canada

Bochu Liu
University of Toronto - St. George

16:10 Combining GPS and Time-use Data to Study Dietary Behaviours

Michael J. Widener
University of Toronto - St. George

Meeting Room

Workshop

10:05 Designing User Interfaces for Geospatial Applications

Jonathan Van Dusen
Esri Canada

Accessing Healthcare

13:10 Mapping the Gendered Differences of Carer-Employees' Travel Behaviour through Time-Space Prisms

Nicole Langdon
McMaster University

Allison Williams
McMaster University

13:30 Variations in Spatial Accessibility by Race to Acute Healthcare Facilities in Major Canadian Cities

Kelly Hui
University of Toronto - St. George

13:50 Mapping Segregation: Integrating Historical Analysis and GIS

Rebecca Nickerson
Brock University

Maureen Lux
Brock University

14:15 Reporting Items of Disease Maps

Inthuja Selvaratnam
University of Guelph

14:35 Environmental Effects on the Prevalence of Neurological Disorders

Simon Boushel
Carleton University

14:55 Developing New Inspection Zones for Southwestern Public Health Using ArcGIS Pro

Jason Gilliland
University of Western Ontario

Autonomous Mapping

15:30 The Use of Mobile Robotics in Mapping Contamination

Chandula Fernando
University of Toronto Mississauga

15:50 Interactive Guide to Autonomous Magnetic and Bathymetric Surveys of Canadian Lakes

Mitchell Wootton
Queen's University

16:10 Use of Reinforcement Learning for UAV Mapping

Agata Szeremeta
York University

Music Room

Workshop

10:05 Animating CityEngine Models with the Unity Game Engine

Michael Luubert
Esri Canada

Workshop

13:10 Designing Urban Futures

David Kossowky
Esri Canada

Demo Session

15:30 3D and Geodesign

David Kossowky
Esri Canada

Michael Luubert
Esri Canada

South Dining Room

Investigating Urban Areas

11:10 Bridging the Gap between BIM and GIS Using Semantic Web

Aman Ullah Usmani
York University

11:30 Investigating the Retail Competition Processes Based on Agent-Based Models in Geospatial Perspectives

Jiaxin Zhang
University of Waterloo

11:50 Validation of the TanDEM-X DEM Using Airborne LiDAR and Spaceborne SAR in the Dallas-Fort Worth Metroplex, Texas, USA

Daniela Iribe-Gonzalez
Queen's University

Urban Planning

10:05 Smart Cities Mississauga

Steve Czajka
City of Mississauga

10:25 Designing a Complete Streets Dashboard for Team iCity

Veda Adnani
OCAD University

Iman Kewalramani
OCAD University

10:45 UP-3D: Urban Planning with 3D Visualizations in a Collaborative, Cloud-based, Open Source Platform

Tianming Wei
University of Victoria

Roads & Buildings

13:10 Interpreting Electric Vehicle Charging Event Data Using Spatial Interpolation and Topic Models

Rene Richard
University of New Brunswick

13:30 Geometry-Guided Adaptation for Road Segmentation

Gong Cheng
York University

13:50 Modeling Taxi Trips on a Spatial Graph Using Random Shortest Path

Chang Ren
Western University

14:15 Using Deep Neural Networks for Automatic Building Extraction with Boundary Regularization from Satellite Images

Muhammad Kamran
York University

14:35 (De)composing the City Using Machine Learning

Xi Peng
University of British Columbia

14:55 Augmented Reality Assisted Modeling

Pio Claudio
York University

Urban Land Use

15:30 Implementation of an Enhanced Entropy Computation Algorithm for Measuring Urban Land Use Diversity

Pedram Fard
University of Waterloo

15:50 A 'Big Data' Textual Analysis of Transportation Infrastructure and Amenity Access in Qualitative Adjustments Residential Property Appraisals

Matthew Palm
University of Toronto

16:10 Spatio-Temporal Analysis of Housing Market Transactions in the Greater Toronto-Hamilton Area (GTHA): Predicting Land Use Classes

Stepan Oskin
University of Toronto - St. George

Shivani Raghav
University of Toronto - St. George