

Mingke Erin Li

Department of Geomatics Engineering

Schulich School of Engineering, University of Calgary

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mingke.li@ucalgary.ca +1 (506) 998-9751**Education**

Present Ph.D., GIScience and Land Tenure, Department of Geomatics Engineering, University of Calgary, Canada

2019 MSc, Forestry, Faculty of Forestry and Environmental Management, University of New Brunswick, Canada

2016 BSc, GIScience, Faculty of Forestry, Nanjing Forestry University, Nanjing, China

Research Interests

Discrete Global Grid Systems
Geographic Information Science
Spatial Analysis
Forest Ecology

Peer-reviewed Publications

2021 **Li, M.;** McGrath, H.; Stefanakis, E. Integration of Heterogeneous Terrain Data into Discrete Global Grid Systems. *Cartography and Geographic Information Science*. Accepted.

2020 **Li, M.;** Stefanakis, E. Geospatial Operations of Discrete Global Grid Systems – A Comparison with Traditional GIS. *Journal of Geovisualization and Spatial Analysis* 4(2), 26.

2020 **Li, M.;** Stefanakis, E. Geo-feature Modeling Uncertainties in Discrete Global Grids: A Case Study of Downtown Calgary, Canada. *Geomatica* 74, 175-195.

2020 **Li, M.;** MacLean, D.A.; Hennigar, C.R.; Ogilvie, J. Previous Year Outbreak Conditions and Spring Climate Predict Spruce Budworm Population Changes in the Following Year. *Forest Ecology and Management* 458, 117737.

2019 **Li, M.;** MacLean, D.A.; Hennigar, C.R.; Ogilvie, J. Spatial-Temporal Patterns of Spruce Budworm Defoliation within Plots in Québec. *Forests* 10, 232.

Conference Presentations

2021 **Li, M.;** McGrath, H.; Stefanakis, E. Integration of multi-source terrain data on Discrete Global Grids in Canada. 2021 Canadian Cartographic Association Conference, Online

2020 **Li, M.;** Stefanakis, E.; McGrath, H. National terrain data management on Discrete Global Grids in Canada. AutoCarto 2020, Online

- 2018 **Li, M.**; MacLean, D.A.; Hennigar, C.R.; Ogilvie, J. Spatial-temporal patterns of spruce budworm defoliation within measured plots in Québec. The 9th Bi-Annual Eastern Canada - USA Forest Science Conference, Fredericton, Canada
- 2018 **Li, M.**; MacLean, D.A. GIS analyses of factors influencing spruce budworm outbreak initiation in northern New Brunswick. SERG International Workshop, Edmonton, Canada

Other Invited Presentations

- 2021 **Li, M.** Integration Platform for Canadian Terrain Data: A DGGS Perspective. Presented at the Natural Resources Canada, Online

Teaching Assistant Experience

- 2020 Introduction to Geospatial Information Systems, University of Calgary
- 2018 Management of Natural Systems, University of New Brunswick
- 2017 Introduction to GIS with Applications in Forestry and Environmental Management, University of New Brunswick
- 2017 GIS Training for Natural Resource Professionals Workshop, University of New Brunswick

Honors, Awards & Activities

- 2021 Esri Canada Centre of Excellence App Challenge – Runner Up, Calgary, Canada
- 2018 SERG International Graduate Student Award, Edmonton, Canada

Professional Skills

Python, R, Jupyter Notebook, SQL, Linux
ESRI Products, ArcGIS Online, QGIS, ENVI
ArcPy, GDAL, LAStools, FUSION
PostgreSQL, Microsoft SQL Server, MongoDB, Neo4j