

Mingke Erin Li

Department of Geomatics Engineering

Schulich School of Engineering, University of Calgary

2500 University Drive NW, Calgary Alberta T2N 1N4, Canada

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*. Under review.
- 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, SQL
ESRI Products, ArcGIS Online, QGIS, ENVI
ArcPy, GDAL, LAStools, FUSION
PostgreSQL, Microsoft SQL Server, MongoDB, Neo4j