Paul Michael Treitz (Professor Emeritus)

Address

Department of Geography and Planning
Queen's University
68 University Avenue
Kingston Ontario K7L 3N6
Canada

Telephone

Mobile	1-613-876-3653
Work (*)	1-613-533-6030

Email

Work (*)	paul.treitz@queensu.ca

Website

Corporate	https://www.queensu.ca/geographyandplanning/larsees/
Corporate	https://www.queensu.ca/geographyandplanning/

Degrees

1991/9 - 1997/5	**Doctorate, Geography (PhD), Remote Sensing, University of Waterloo** Thesis Title: Boreal Forest Ecosite Characterization at Site and Landscape Scales using Multispatial Resolution Remote Sensing Data Supervisor: Dr. Philip Howarth
1983/9 - 1986/10	**Master's Thesis, Geography (MA), Remote Sensing, University of Waterloo** Thesis Title: The Capabilities of Two Airborne Multispectral Sensors for Identifying Coniferous Forest Species Supervisor: Dr. Philip Howarth
1985/9 - 1986/5	**Bachelor of Education, Biology / Geography, Brock University**
1979/9 - 1983/5	**Bachelor of Science (Honours), Biology / Geography, Brock University**

Recognitions

2025/5	**Award for Service to the Profession of Geography**, Presented by the Canadian Association of Geographers, Ottawa, Canada
2022/11	Elected **Fellow of the Royal Canadian Geographical Society (FRCGS)**
2017/7 - 2018/7	Nominated (2017 and 2018) for the **W.J. Barnes Teaching Excellence Award for Arts and Science**, Undergraduate Society, Queen's University, Kingston
2017/9 - 2018/4	**Julian Szeicz Award**, Queen's University, Kingston, Excellence in Teaching
2017/1 - 2017/12	**Canadian Journal of Remote Sensing 2017 Best Paper Award (2nd Place)** Awarded by the Canadian Remote Sensing Society Shang, C., Treitz, P., Caspersen, J., Jones, T. (2017). Estimating stem diameter distributions in a management context for a tolerant hardwood forest using ALS height and intensity data. Canadian Journal of Remote Sensing, 43(1):79-94.
2004/9 - 2005/4	**Julian Szeicz Award**, Queen's University, Kingston, Excellence in Teaching
2003/7 - 2008/6	**Premier's Research Excellence Award** - $100,000, Ontario "Modelling Forest Ecosystem Structure using Light Detection and Ranging (LiDAR)"
2001/1 - 2001/12	**Boeing Autometric Award** The American Society for Photogrammetry and Remote Sensing presents the Boeing Autometric Award for Best Paper in Image Analysis and Interpretation published in Photogrammetric Engineering and Remote Sensing. Treitz, P., Howarth, P. (2000). Integrating Spectral, Spatial, and Terrain Variables for Forest Ecosystem Classification, Photogrammetric Engineering and Remote Sensing, 66(3):305-317.
1994/9 - 1995/8	Awarded the Robert "Starbird" Dorney Award in 1994. [Presented to a PhD candidate in the Faculty of Environmental Studies, University of Waterloo who is studying applied ecology and environmental management.]
1992/1 - 1993/1	**John I Davidson President's Award for Practical Papers** Presented by the American Society for Photogrammetry and Remote Sensing to commend those who publish papers of applied value in Photogrammetric Engineering and Remote Sensing. Treitz, P., Howarth, P., Gong, P. (1992). Application of Satellite and GIS Technologies for Land-Cover and Land-Use Mapping at the Rural-Urban Fringe: A Case Study, Photogrammetric Engineering and Remote Sensing, 58(4):439-448.

Employment

2023/9	Professor Emeritus Geography and Planning, Arts and Science, Queen's University, Kingston
2009/7 - 2023/08	Professor Geography and Planning, Arts and Science, Queen's University, Kingston
2022/9 - 2022/11	Visiting Researcher Department of Earth Sciences, University of Göteborg (Gothenburg), Sweden
2019/7 - 2022/6	Interim Head of Department Geography and Planning, Arts and Science, Queen's University, Kingston

2017/3 - 2017/5	Visiting Researcher Arctic Research Centre at Umeå University (ARCUM), Umea University, Sweden
2015/7 - 2016/6	Interim Head of Department Geography and Planning, Arts and Science, Queen's University, Kingston
2010/7 - 2015/6	Head of Department Geography, Arts and Science, Queen's University, Kingston
2008/7 - 2009/6	Associate Head of Department Geography, Arts and Science, Queen's University, Kingston
2002/7 - 2009/6	Associate Professor Geography, Arts and Science, Queen's University, Kingston
2007/7 - 2008/6	Acting Head of Department Geography, Arts and Science, Queen's University, Kingston
2002/7 - 2006/6	Graduate Chair Geography, Arts and Science, Queen's University, Kingston
2001/4 - 2001/6	Visiting Researcher Forest Resource Management, Swedish Univ Agric Sciences, Umea, Sweden
1999/7 - 2000/6	Senior Fellow Environmental Studies, York University
1999/7 - 2002/6	Assistant Professor Geography, Arts and Science, Queen's University, Kingston
1997/7 - 1999/6	Assistant Professor Geography, Arts and Environmental Studies, York University
1995/7 - 1997/6	Lecturer Geography, Arts and Environmental Studies, York University
1989/9 - 1995/6	Research Scientist Earth Observations Laboratory, Geography, University of Waterloo
1989/9 - 1995/6	Instructor Geography, Environmental Studies, University of Waterloo
1989/5 - 1989/8	Instructor Geography, Arts and Science, Trent University
1987/9 - 1989/8	Instructor Geographic Information Systems Technician Program, School of Natural Resources, Sir Sandford Fleming College
1986/5 - 1987/8	Teacher - Geography Fenelon Falls Secondary School, Fenelon Falls, Ontario

Research Funding History

2019/4 – 2026/3 Principal Investigator	**Remote Sensing of Vegetation Types, Productivity and Change in the Canadian Arctic** Funding Sources: Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant Total Funding - $216,000

2015/4 - 2020/3
Co-Applicant

Assessment of Wood Attributes using Remote Sensing (AWARE)
Funding Sources:
NSERC Collaborative Research and Development Grant
Total Funding - $3,350,000
Co-Applicants: A. Achim, B. St-Onge, D. Maclean, J. Dech, J. Casperson, R. Fournier
Principal Applicant: N. Coops

2017/5 – 2020/3
Co-Investigator

Vegetation Productivity and Phenology across the Bathurst Caribou Range
Funding Sources:
Government of the Northwest Territories
Cumulative Impact Monitoring Program
Total Funding - $121,000
Principal Investigator: Ryan Danby

2014/4 - 2019/3
Principal Investigator

Remote Sensing of Biophysical Variables at Multiple Spatial Scales along a Latitudinal Gradient in the Canadian Arctic
Funding Sources:
NSERC Discovery Grant
Total Funding - $185,000

2008/5 - 2019/12
Principal Applicant

Modelling Soil Moisture and Vegetation Community Structure using High Spatial Resolution Satellite Optical and Synthetic Aperture Radar Data for a High Arctic Watershed
Funding Sources:
Aboriginal Affairs and Northern Development Canada (AANDC)
Northern Science and Technology Program (NSTP)
Total Funding - $59,500
Co-Investigators: S. Allux, C. Braybrook, M. Bonney, A. Collingwood, R. Edwards, V. Freemantle, F. Gregory, J. Hung, N. Liu, G. Robson, A. Rudy

2015/4 - 2018/3
Co-Investigator

Water Security and Quality in a Changing Arctic
Funding Sources:
National Centres of Excellence (NCE) - ArcticNet
Total Funding - $428,122
Co-Investigators: D. Muir, E. Humphreys, M. Simpson, N. Scott, V. St.Louis
Principal Investigators: M. Lafreniere, S. Lamoureux

2012/4 - 2016/3

Assessing Forest Biomass as a Bioenergy Feedstock: The Availability and Recovery of Biomass in Uneven-Aged Forests
Funding Sources:
Natural Resources Canada – ecoEnergy Innovation Initiative
Total Funding - $300,000
Co-Investigators: M. Woods, T. Jones, Y. He
Collaborator: D. Cormier
Principal Investigator: J. Casperson

2013/4 - 2015/3
Principal Investigator

Differential InSAR and Hazard Susceptibility Mapping for Assessing Permafrost Degradation (in-kind contribution of Radarsat-2 data)
Funding Sources:
Canadian Space Agency, Science and Operational Applications Research
Total Funding - $40,000

2009/4 - 2015/3
Co-Investigator

High Arctic Hydrological, Landscape and Ecosystem Responses to Climate Change: Integrated Watershed Research at the Cape Bounty Arctic Watershed Observatory, Melville Island
Funding Sources:
NCE - ArcticNet
Total Funding - $450,000
Co-Investigators: D. Muir, E. Humphreys, M. Simpson, N. Scott, P. Lafleur, V. St.Louis
Principal Investigators: M. Lafreniere, S. Lamoureux

2009/4 - 2014/3
Principal Investigator

Remote Sensing of Environmental Change across Northern Terrestrial Ecosystems
Funding Sources:
NSERC Discovery Grant
Total Funding - $180,000

2009/10 - 2013/12
Co-Investigator

Modelling High Arctic Permafrost Landscape Stability and Water Quality for Changing Climate and Resource Development
Funding Sources:
NSERC Strategic Grant
Total Funding - $599,075
Principal Investigators: M. Lafreniere, Scott Lamoureux

2011/6 - 2013/5
Principal Investigator

Precision Planning Inventory Tools for Forest Value Enhancement
Funding Sources:
NCE - GEOIDE Phase IV Strategic Investment Initiative
Total Funding - $160,000
Collaborators: J. Dech, D. Pitt, K. Lim, M. Woods

2008/4 - 2012/3
Principal Investigators

Biophysical Variable Estimation for Arctic Vegetation Communities using Remote Sensing
Funding Sources:
NCE - ArcticNet
Total Funding - $47,000

2006/4 - 2011/3
Co-Investigator

Climate Change and Permafrost Impacts on High Arctic Watershed Fluxes: Cape Bounty, Melville Island Experimental Watershed Observatory
Funding Sources:
Government of Canada – International Polar Year
Total Funding - $770,396
Co-Investigators: M. Lafreniere, N. Scott
Principal Investigator: Scott Lamoureux

2009/4 - 2011/3
Principal Applicant

Soil Moisture Modelling of Arctic Tundra Soils using Radarsat-2 SAR (in-kind contribution of Radarsat-2 data)
Funding Sources:
Canadian Space Agency, Science and Operational Applications Research
Total Funding - $40,000
Collaborators: B. Brisco, F. Charbonneau

2007/4 - 2010/3
Principal Investigator

Evaluation and Development of LiDAR Data Acquisition Standards for Forest Inventory Applications and Predictive Forest Ecosite Classification
Funding Sources:
Ontario Centre of Excellence (OCE) – Earth and Environmental Technologies
Total Funding - $140,000

2007/4 - 2009/3
Co-Investigator

Advanced Forest Resource Inventory Technologies (AFRIT) Project
Funding Sources:
Canadian Wood Fibre Centre
Total Funding - $120,000
Co-Investigators: M. Woods
Principal Investigator: D. Pitt

2008/4 - 2009/3
Principal Investigator

Spectral Analysis of Vegetation Communities for Estimating Biophysical Variables of Northern Ecosystems
Funding Sources:
NSERC Equipment Grant
Total Funding - $20,000

2007/4 - 2009/3
Co-Investigator

Optimizing Ontario-based Wood Pellet Production for Co-firing and Market Development and Penetration
Funding Sources:
OCE – Atikokan Bioenergy Research Centre (ABRC)
Total Funding - $400,000
Co-Investigators: N. Scott
Principal Investigators: A. Pollard

2004/4 - 2009/3
Principal Investigator

Spectral/Spatial/Temporal Analysis of Remote Sensing Data for Estimating Biophysical Variables of Arctic and Boreal Ecosystems
Funding Sources:
NSERC Discovery Grant
Total Funding - $113,000

2003/4 - 2008/3
Principal Investigator

Modelling Forest Ecosystem Structure using Light Detection and Ranging (LiDAR)
Funding Sources:
Premier's Research Excellence Award
Total Funding - $100,000

2000/4 - 2008/3
Principal Investigator

Three-Dimensional Analysis of Forest Structure and Terrain using LiDAR Technology
Funding Sources:
OCE – Earth and Environmental Technologies
Total Funding - $368,000

2002/4 - 2007/3
Co-Investigator

Fluxnet-Ontario: Understanding the Impacts of Climate, Disturbances and Management on Carbon Cycling Processes in Forest and Peatland Ecosystems
Funding Sources:
NSERC – BIOCAP Strategic Grant
Total Funding - $1,185,000
Principal Investigator: H. McCaughey

2003/4 - 2007/3
Principal Applicant

Soil Moisture and Vegetation Community Structure for a High Arctic Watershed
Funding Sources:
Aboriginal Affairs and Northern Development Canada - NSTP
Total Funding - $28,000
Co-Investigators: D. Atkinson, A. Maher, K. Molina, A. Taylor, S. Thompson

2003/1 - 2006/12
Principal Applicant

Biophysical Remote Sensing of Arctic Tundra Ecosystems along a Latitudinal Gradient from Melville Island to Iqaluit, NU
Funding Sources:
Natural Resources Canada – Polar Continental Shelf Project
Total Funding - $50,000

2003/4 2006/3
Co-Applicant

LiDAR and Digital Photogrammetry for Enhanced Forest Resource Inventory
Funding Sources:
NSERC – BIOCAP Strategic Grant
Total Funding - $405,000
Co-Applicant: B. St-Onge

2002/5 – 2004/9
Co-Investigator

Cooperative Population Status and Winter Ecology Research of Peary Caribou and Muskoxen on the South-central Queen Elizabeth Islands (QEI) of Nunavut
Funding Sources:
Government of Nunavut – Wildlife Research Trust
Total Funding - $884,000
Principal Investigator: M. Ferguson

2001/5 - 2004/9
Principal Investigator

Soil Moisture Modelling of Arctic Tundra Soils using Synthetic Aperture Radar (SAR)
Funding Sources:
Aboriginal Affairs and Northern Development Canada - NSTP
Total Funding - $7,000
Co-Investigators: C. Sherriff, J. Wall

2003/4 - 2004/3
Principal investigator

Winter Foraging Patterns of Peary Caribou and Muskoxen on the South-Central Queen Elizabeth Islands (QEI) of Nunavut
Funding Sources:
Environment Canada – Habitat Stewardship Program
Total Funding - $10,500

1999/7 - 2004/3
Principal Investigator

Laboratory for Remote Sensing of Earth and Environmental Systems
Funding Sources:
Queen's University – Research Initiation Grant
Total Funding - $98,000

1999/7 - 2004/3
Principal Investigator

Forestry Practices and Carbon Sequestration in Ontario
Funding Sources:
NSERC – BIOCAP Strategic Grant
Total Funding - $96,000
Principal Investigator: H. McCaughey

1999/4 - 2004/3
Principal Investigator

Spectral/Spatial/Temporal Analysis of Optical Remote Sensing Data for Mapping Forest Ecosites and Ecological/Biophysical Parameters
Funding Sources:
NSERC Discovery Grant
Total Funding - $115,000

1997/4 - 2002/3
Co-Investigator

CIDA Collaborative Environment Project in Indonesia
Funding Sources:
CIDA - University Consortium on the Environment
Total Funding - $1,200,000
Co-Applicants: B. Mitchell, E. Spence, E. LeDrew, G. Wall

2000/4 - 2002/3
Co-Applicant

Three-Dimensional Analysis of Forest Structure and Terrain using LiDAR Technology
Funding Sources:
NCE - GEOIDE
Total Funding - $220,000
Co-Applicant: B. St-Onge

2001/4 - 2002/3
Co-Applicant

Detection and Mapping of Purple Loosestrife in Wetlands of Southeastern Ontario using CASI and IKONOS Data
Funding Sources:
Centre for Research in Earth and Space Technology
Total Funding - $58,000
Co-applicant: Dennis Jelinski

1999/4 2002/3
Co-Investigator

Imaging Spectroscopy for the Management of the Canadian Landscape with emphasis on the Boreal Forest and the Tundra
Funding Sources:
NCE - GEOIDE
Total Funding - $210,000
Co-investigators: B. Rivard, K. Staenz, J. Chen
Principal Investigator: J. Miller

2001/5 - 2001/9
Co-Applicant

Integrated Hydrometeorological, Biophysical and Paleological Measurements, Boothia Peninsula, Nunavut
Funding Sources:
Natural Resources Canada – Polar Continental Shelf Project
Total Funding - $40,000 (in-kind logistical support)
Co-Applicant: S. Lamoureux

2001/5 - 2001/9
Principal Investigator

A Remote Sensing Field-based Approach for Estimating the Spatial Distribution of Biomass for an Arctic Watershed, Boothia Peninsula, Nunavut
Funding Sources:
Aboriginal Affairs and Northern Development Canada - NSTP
Total Funding - $5,000
Co-Investigator: G. Laidler

2000/4 – 2001/3
Principal Investigator

Soil Moisture Modelling of Arctic Tundra Soils using Synthetic Aperture Radar
Funding Sources:
Queen's University – Principals Development Fund
Total Funding - $9,600

1998/4 – 1999/3
Principal Investigator

Research Laboratory for Spatial Modelling of Earth and Environmental Systems
Funding Sources:
Canada Foundation for Innovation
Total Funding - $162,000
Co-Investigators: Q. Cheng, G. Sheng

1998/4 – 1999/3
Co-investigator

Optical Indices as Bioindicators of Forest Sustainability
Funding Sources:
Centre for Research in Earth and Space Technology
Total Funding - $73,000
Principal Investigator – J. Miller

1996/4 1998/3
Principal Investigator

Radar for an Agricultural Monitoring System
Funding Sources:
Institute for Space and Terrestrial Science
Total Funding - $14,200

1996/4 - 1998/3
Co-investigator

Assessment of Radarsat SAR Data for Crop Classification
Funding Sources:
Canadian Space Agency
Applications Development and Research Opportunities
Total Funding - $106,240
Principal Investigator: P. Howarth

1993/4 – 1997/3
Co-Investigator

Airborne and Satellite Remote Sensing for Forest Ecosystem Classification
Funding Sources:
Canadian Forest Service – Northern Forest Program
Total Funding - $24,200
Principal Investigator: P. Howarth

Courses Taught (Geography and Planning, Queen's University at Kingston)

GPHY 102: Physical Geography and Natural Resources
GPHY 207: Principles of Biogeography
GPHY 242: Remote Sensing I - Remote Sensing of Environment
GPHY 314: Climate Change
GPHY 342: Remote Sensing II - Digital Image Processing
GPHY 801: Conceptual and Methodological Basis of Geography
GPHY 842: Remote Sensing of Earth and Environmental Systems
GPHY 857: Geography Research Seminar

Courses Taught (Geography and Environmental Studies, York University)

GEOG 2420: Introductory Statistical Analysis
GEOG 3440 / ENVS 3521: Environmental Remote
GPHY 4440 / ENVS 4521: Remote Sensing and Image Processing for Geographical Analysis and Environmental Monitoring
GEOG 4520: Geographical Information System Applications in Environmental Studies
GEOG 5015 / ENVS 6188: Remote Sensing and Image Processing for Geographical Analysis and Environmental Monitoring
ENVS 6189 (with Edward Spence): Geographical Information Systems Applications in Planning and Resource Management
ENVS 7189: Advanced Geographic Information Systems for Environmental Studies

Courses Taught (University of Waterloo)

GPHY 376: Environmental Remote Sensing
GPHY 471 (with Philip Howarth): Advanced Remote Sensing
GPHY 600 (with Grant Head): Spatial Data Handling

Courses Taught (Trent University)

GPHY 399: Manual and Digital Remote Sensing

Courses Taught (School of Natural Resources, Sir Sandford Fleming College)

Instructor, Geographic Information Systems Applications Specialist Program
Course Title: Digital Remote Sensing

Instructor, Natural Resources Program
Course Title: Photogrammetry and Airphoto Interpretation for Forestry
Course Title: Airphoto Interpretation for Terrain Analysis
Course Title: Airphoto Interpretation for Fish and Wildlife

Manager, Centre for Advanced Resource Measurement and Assessment (CARMA)
Installation and maintenance of image processing and geographic information systems software.

Program Development

2005/9 Lead Author - Program Proposal, Geography, Queen's University, Kingston

Program Title: Certificate in Geographic Information Science (GISc)
Course Level: Undergraduate

Program Description: Geographic Information Science (GISc) is the broad umbrella under which geospatial data are collected, processed, and analyzed. The Department of Geography and Planning offers a Certificate in GISc to enhance the skills of students not only in Geography and cognate disciplines, but across the gamut of concentrators in the university. Beyond technical skills, the Certificate in GISc equips students with a deeper understanding of the geographic and environmental concepts that underlie GISc.

1999/6 Lead Author - Program Proposal, Geography, Faculty of Arts; Environmental Studies; Earth and Atmospheric Science, Faculty of Science; York University, Toronto

Program Title: Geographic Information Systems and Remote Sensing Certificate Program
Course Level: Undergraduate

Program Description: While at York University, I led the development of a comprehensive new program in Geographic Information Systems and Remote Sensing that included three faculties (Faculty of Arts, Faculty of Environmental Studies, and Faculty of Science). This required a tremendous amount of collaboration among faculty and administrators in these three Faculties to be approved by York Senate.

Student Supervision

Bachelor's Honours [n=18]

2015/5 - 2016/4
Principal Supervisor
Ezzio, Sarah, Queen's University
An Analysis of Seasonal Digital Hemispherical Photographs for the Determination of Woody-to-Total-Area Ratios and Leaf Area Index (LAI) for a Mixedwood Forest

2013/9 - 2014/4
Principal Supervisor
Gunn, Emma, Queen's University
Estimating Canopy Volume for Forest Ecosite Types using LiDAR Data

2011/9 - 2012/4
Principal Supervisor
Schmied, Sarah, Queen's University
The Comparison Between Differing Point-Density Multi-Temporal LiDAR Data to Detect Forest Growth in the Petawawa Research Forest using 2007 and 2012 Data

2011/9 - 2012/4 Co-Supervisor	**Eastwood, Sadie**, Queen's University High Resolution Time Series Photography for Monitoring Forest Canopy Phenology
2010/5 - 2011/4 Co-Supervisor	**Tamminga, Aaron**, Queen's University A Biogeochemical Examination of Ontario's Boreal Forest Ecosite Classification System
2010/5 - 2012/9 Principal Supervisor	**McLeod, Fraser**, Queen's University LiDAR Remote Sensing for Forest Resource Inventory
2009/9 - 2010/4 Principal Supervisor	**Keyvan Parnevah**, Queen's University Vegetation Phenology and NDVI Time Series
2009/5 - 2010/4 Co-Supervisor	**Gagliardi, Stephanie**, Queen's University Ecosite Classification and Forest Productivity: An Analysis of the Relations between Canopy Structure and Ecosite Class
2008/9 - 2009/4 Principal Supervisor	**Hagerman, Anne**, Queen's University Estimating Basal Area in Tolerant Hardwood Stands Using LiDAR: An Investigation of Field Basal Area Census Methods
2007/9 - 2008/4 Co-Supervisor	**Valiquette, Luc**, Queen's University Terrestrial Laser Scanning of Building Facades
2007/9 - 2008/4 Principal Supervisor	**Gralewicz, Nicholas**, Queen's University LiDAR Estimation of Biophysical Variables in Pristine Northern Tolerant Hardwood Stands
2007/9 - 2008/4 Principal Supervisor	**Fedrigo, Melissa**, Queen's University A Comparison of Digital Elevation Models Derived from Topographic Maps and Airborne LiDAR Data under Varying Forest Canopy Densities
2006/9 - 2007/4 Principal Supervisor	**Farrar, Andrew**, Queen's University A Comparison of Wetland Classification Accuracy using IKONOS-2 and Landsat-5 Satellite Imagery: A Case Study of Bastard Township Ontario
2006/5 - 2007/4 Principal Supervisor	**Molina, Kimberly**, Queen's University Mid-Arctic Vegetation: Community Structure Effects on Soil Carbon, Nitrogen and Water
2005/5 - 2006/4 Principal Supervisor	**Thompson, Shanley**, Queen's University Soil Moisture and Vegetation Patterns on Boothia Peninsula, NU
2004/9 - 2005/4 Principal Supervisor	**Forsyth, Freya**, Queen's University Soil Moisture and Arctic Plant Community Structure
2001/9 - 2002/4 Principal Supervisor	**Andrew-McBride, Peter**, Queen's University The Effects of Radarsat Incidence Angle on Agricultural Crop Statistics
2001/1 - 2002/4 Principal Supervisor	**Sheriff, Craig**, Queen's University Soil Moisture Estimation of Arctic Soils using Synthetic Aperture Radar (SAR)

Master's Thesis [n=28]

2020/9 – 2022/12 Co-Supervisor	**Yaacoub, Sandra**, Queen's University Assessment of Spruce Beetle Impacts on Boreal Forests in Southwest Yukon Using Imaging Spectroscopy (AVIRIS) and Laser Scanning Data (LVIS) [Accelerated to the PhD Program on 2023/01.]
2017/9 - 2018/12 Co-Supervisor	**Kuzmich, Rachel**, Queen's University Modelling Forest Structure for Songbird Habitat Analyses using ALS data [Accelerated to the PhD Program on 2019/01.]

2018/9 - 2020/8 Co-Supervisor	**Robson, Greg**, Queen's University Seasonal Ground Surface Change Detected by DInSAR at Cape Bounty, Melville Is., NU
2018/9 - 2020/8 Co-Supervisor	**Robson, Greg**, Queen's University Seasonal Ground Surface Change Detected by DInSAR at Cape Bounty, Melville Is., NU
2018/5 - 2020/8 Principal Supervisor	**Braybrook, Christina**, Queen's University Impact of Environmental Variability on Net Ecosystem CO_2 Exchange from 2008-2018 at a High Arctic Mesic Tundra Site
2016/9 - 2019/12 Principal Supervisor	**Freemantle, Valerie**, Queen's University A High Spatial Resolution Satellite Remote Sensing Time Series Analysis of Cape Bounty, Melville Island, Nunavut (2004-2018)
2016/9 - 2019/12 Co-Supervisor	**Marczak, Paulina**, Queen's University Predicting Carbon Accumulation in Temperate Forests of Ontario using a LiDAR-Initialized Growth-and-Yield Model
2015/9 - 2017/8 Co-Supervisor	**Bonney, Mitchell**, Queen's University Landscape Variability of Vegetation Change across the Forest to Tundra Transition of Central Canada
2014/9 - 2016/8 Principal Supervisor	**Edwards, Rebecca**, Queen's University Remote Sensing of Vegetation Change across a Latitudinal Gradient in the Canadian Arctic
2013/9 - 2015/12 Co-Supervisor	**Blaser, Amy**, Queen's University Spatial and Temporal Patterns of Carbon Dioxide Exchange for a Wet Sedge Plant Community, Melville Island, NU
2012/9 - 2015/4 Co-Supervisor	**Buckley, Emma**, Queen's University Spatial and Temporal Patterns of Net Carbon Exchange in the Polar Semi-Desert Vegetation Type on Melville Island, NU
2010/9 - 2013/12 Principal Supervisor	**Allux, Sarah**, Queen's University Hyperspectral and Broad-Band Indices for Characterizing High Arctic Vegetation [The candidate withdrew in good standing from the MSc program.]
2010/9 - 2012/8 Principal Supervisor	**Pope, Graham**, Queen's University LiDAR and Worldview-2 Satellite Data for Leaf Area Index Estimation in the Boreal Forest
2009/9 - 2011/8 Co-Supervisor	**Cassidy, Alison**, Queen's University The Effects of Recent and Relict Permafrost Disturbances on Tundra Vegetation, Cape Bounty, Melville Island, NU
2008/9 - 2010/4 Co-Supervisor	**Kim, Stephen**, Queen's University Spatial Modelling of Biomass and Productivity using SPOT Satellite Data [The candidate withdrew in good standing from the MSc program.]
2008/9 - 2010/8 Co-Supervisor	**Southee, Florence**, Queen's University Ecological Land Classification and Soil Moisture Modelling in the Boreal Forest using LiDAR Remote Sensing
2008/9 - 2011/4 Co-Supervisor	**McQuat, Gregory**, Queen's University Feature Extraction Workflows for Urban Mobile-Terrestrial LiDAR Data
2007/9 - 2011/4 Co-Supervisor	**Gregory, Fiona**, Queen's University Biophysical Remote Sensing and Terrestrial CO_2 Exchange at Cape Bounty, Melville Island

2006/8 - 2008/9 Co-Supervisor	**Shulman, Holly**, Queen's University Estimating Evacuation Vulnerability of Urban Transportation Systems Using GIS
2003/9 - 2005/8 Principal Supervisor	**Maher, Andrew**, Queen's University Assessing Snow Cover and Its Relationship to Distribution of Peary Caribou in the High Arctic
2003/9 - 2005/8 Co-Supervisor	**Taylor, Alexandra**, Queen's University Inuit Qaujimajatuqangit about Population Changes and Ecology of Peary Caribou and Muskoxen on the High Arctic Islands of Nunavut
2002/9 - 2005/8 Principal Supervisor	**Hessing-Lewis, Margot**, Queen's University Assessing the Potential for Eelgrass Restoration in the Squamish Estuary, British Columbia
2002/9 - 2005/8 Principal Supervisor	**Wall, Jake**, Queen's University Arctic Remote Sensing of Soil Moisture with Multi-Temporal SAR Imagery
2000/9 - 2002/6 Principal Supervisor	**Laidler, Gita**, Queen's University Multi-Resolution Remote Sensing Data for Characterizing Tundra Vegetation Communities on Boothia Peninsula, Nunavut
1999/9 - 2001/8 Principal Supervisor	**Thomas, Valerie**, Queen's University Hyperspectral Assessment of Acer Saccharum Forest Structure
1998/9 - 2002/5 Principal Supervisor	**Prenzel, Bjorn**, York University Remote Sensing and GIS for Thematic Land Surface Analysis and Monitoring: A Case Study of the Tondano Study Area, Sulawesi, Indonesia
1997/9 - 1999/6 Principal Supervisor	**Thomas Lee**, York University Identifying Ecological Communities in the Temagami Region (4E4)
1997/9 - 1999/6 Principal Supervisor	**Gosia Bryja**, York University Connectivity and Development of a Protected Areas Network in Ontario
1997/9 - 2000/8 Principal Supervisor	**Sampson, Paul**, York University Forest Condition Assessment: An Examination of Scale, Structure and Function using High Spatial Resolution Remote Sensing Data
1996/9 - 1998/8 Principal Supervisor	**Bruce McNally**, York University Effects of Incidence Angle on Radarsat SAR Backscatter and Texture Statistics for an Agricultural Environment [The candidate withdrew from the program in good standing.]

Doctorate [n=13]

2023/1 - Co-Supervisor	**Yaacoub, Sandra**, Queen's University Assessment of Spruce Beetle Impacts on Boreal Forests in Southwest Yukon Using Imaging Spectroscopy (AVIRIS) and Laser Scanning Data (LVIS)
2019/01 - 2025/6 Co-Supervisor	**Kuzmich, Rachel**, Queen's University Modelling Forest Structure for Songbird Habitat Analyses using ALS data
2017/9 - 2021/8 Co-Supervisor	**Hung, Jacqueline**, Queen's University Controls on Terrestrial Carbon and Nutrient Cycling in Arctic Permafrost Environments
2013/9 - 2018/6 Principal Supervisor	**Shang, Chen**, Queen's University Modelling Forest Inventory and Biophysical Variables for an Uneven-Aged Forest using Multi-Source Remotely Sensed Data

2012/9 - 2016/12 Co-Supervisor	**Rudy, Ashley**, Queen's University Landscape Patterns of Permafrost Disturbance and Degradation in the Canadian High Arctic
2012/9 - 2017/5 Principal Supervisor	**Liu, Nanfeng**, Queen's University Remote Sensing of the Canadian Arctic: Modelling Biophysical Variables
2010/3 - 2014/10 Co-Supervisor	**Middleton, Maarit**, University of Helsinki Hyperspectral Remote Sensing of Mires in Finland
2009/9 - 2014/12 Principal Supervisor	**Collingwood, Adam**, Queen's University Modeling Biophysical Variables in the Canadian High Arctic using Synthetic Aperture Radar Data
2005/9 - 2015/3 Co-Supervisor	**Ewijk, Karin van**, Queen's University Estimating Forest Structure from LiDAR and High Spatial Resolution Imagery for the Prediction of Succession and Species Composition
2004/9 - 2012/12 Principal Supervisor	**Atkinson, David**, Queen's University Modelling Biophysical Variables and Carbon Dioxide Exchange in Arctic Tundra Landscapes using High Spatial Resolution Remote Sensing Data
2004/9 - 2012/12 Principal Supervisor	**Pilger, Neal**, Queen's University Analysis of Forest Biomass and Carbon Stocks using LiDAR [The candidate withdrew in good standing from the MSc program to focus full time on his business venture].
2002/9 - 2008/4 Co-Supervisor	**Chasmer, Laura**, Queen's University Canopy Structural and Meteorological Influences on CO2 Exchange for MODIS Product Validation in a Boreal Jack Pine Chronosequence
2002/9 - 2006/8 Principal Supervisor	**Lim, Kevin**, Queen's University LiDAR Remote Sensing of Forest Canopy and Stand Structure
2001/9 - 2006/5 Co-Supervisor	**Thomas, Valerie**, Queen's University Spatially Explicit Modelling of Forest Structure and Function using Airborne LiDAR and Hyperspectral Remote Sensing Data Combined with Micrometeorological Measurements

Post-doctorate [n=2]

2015/7 - 2019/12 Principal Supervisor	**Ewijk, Karin van**, Queen's University Assessment of Wood Attributes using Remote Sensing (AWARE)
2002/9 - 2006/5 Principal Supervisor	**Christopher Hopkinson**, Queen's University Terrestrial and Airborne Laser Scanning for Forestry

Editorial Activities

2017/7 – 2023/8	Associate Editor, Arctic Science
2021/1 - 2022/12	Co-Editor - Special Issue, Remote Sensing, 2022. Advances in Terrestrial Remote Sensing of Arctic Environments, Vol. 13, (Eds. Reese, H. and Treitz, P.)
2010/1 - 2010/12	Co-Editor - Special Issue, Canadian Journal of Remote Sensing, 2010. Special Issue for the International Polar Year (IPY), Vol. 36, (Supplemental 1) (Eds. Derksen, C. and Treitz, P.)
2003/1 - 2006/12	Associate Editor, Canadian Journal of Forest Research

2004/1 - 2004/12	Editor - Special Issue, Progress in Planning, 2004. Remote Sensing for Mapping and Monitoring Land-Cover and Land-Use Change, Vol. 61(4).

Conference Review Activities

2025/1 - 2025/12	Scientific Steering Committee, 46th Canadian Symposium on Remote Sensing, Lethbridge, AB, Canada
2024/1 - 2024/12	Scientific Steering Committee, 45th Canadian Symposium on Remote Sensing, Halifax, NS, Canada
2022/1 - 2022/12	Scientific Steering Committee, 44th Canadian Symposium on Remote Sensing, Yellowknife, NT, Canada
2022/1 - 2022/12	Scientific Steering Committee, 43rd Canadian Symposium on Remote Sensing, Quebec City, PQ, Canada
2017/1 - 2017/12	Scientific Steering Committee, Silvilaser 2017, Virginia Tech, Blacksburg, Virginia, USA
2012/1 - 2012/12	Special Session Organizer and Chair, Remote Sensing of Northern Environments, Canadian Association of Geographers – Ontario Division, Kingston, ON, Canada
2012/1 - 2012/12	Scientific Steering Committee, 33rd Canadian Symposium on Remote Sensing, Ottawa, ON, Canada
2012/1 - 2012/12	Scientific Steering Committee, Silvilaser 2012, Vancouver, BC, Canada
2011/1 - 2011/12	Scientific Steering Committee, Silvilaser 2011, Tasmania, Australia
2010/1 - 2010/12	Scientific Steering Committee, 31st Canadian Symposium on Remote Sensing, University of Regina, Regina, SK, Canada
2010/1 - 2010/12	Scientific Steering Committee, Silvilaser 2010: 9th International Conference on Lidar Applications for Assessing Forest Ecosystems, Freiburg, Germany
2009/1 - 2009/12	Scientific Steering Committee, Silvilaser 2009: 9th International Conference on Lidar Applications for Assessing Forest Ecosystems, October 14-16, 2009, Texas A&M University, College Station, TX USA
2009/1 - 2009/12	Scientific Steering Committee, Fifth international Workshop on the Analysis of Multitemporal Remote Sensing Images, July 28-30, 2009, Mystic, Connecticut, USA, Mystic, Connecticut, USA
2009/1 - 2009/12	Scientific Steering Committee, 30th Canadian Symposium on Remote Sensing – Bridging Excellence, University of Lethbridge, Lethbridge, AB, Canada
2008/1 - 2008/12	Scientific Steering Committee, Silvilaser 2008: 8th International Conference on LiDAR Applications in Forest Assessment and Inventory, September 2008, Edinburgh, UK
2006/1 - 2006/12	Scientific Steering Committee, Session Chair, Expert Panel Member, Silvilaser 2006: LiDAR Applications in Forest Inventory and Assessment, Matsuyama Echime, Japan
2003/1 - 2003/12	Scientific Steering Committee, Session Chair, Expert Panel Member, Scandlaser Scientific Workshop on Airborne Laser Scanning of Forests, Swedish University of Agricultural Sciences, Umea, Sweden

Research Funding Application Assessment Activities

External Reviewer, Canada Excellence Research Chair (CERC), Canada 150 Research Chairs Program, Canada First Research Excellence Fund, Tri-agency Institutional Programs Secretariat, Ottawa, Canada

External Reviewer, Research Foundation – Flanders, Fonds Wetenschappelijk Onderzoek, New Research Project Proposal, Flemish Institute for Technological Research

External Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC) International Opportunity Fund

Committee Member, NSERC Special Research Opportunities (SRO) Program College of Reviewers (The SRO program consolidates the Collaborative Research Opportunities (CRO) Program, the International Opportunity Fund (IRO), and the Strategic Projects Fund (SPF).

External Reviewer, Fonds Wetenschappelijk Onderzoek, Postdoctoral Fellow Renewal Application, Academic Reviewer, Flemish Institute for Technological Research

External Reviewer, Royal Society Industrial Fellowship, Academic Reviewer, Royal Society, United Kingdom

External Reviewer, Earth-Observations Research, Categories 1 + 2A, Academic Reviewer, The Research Council of the Netherlands

External Reviewer, NSERC Research Partnerships Program

External Reviewer, The Research Council of Norway, Norway

External Reviewer, Natural Environment Research Council, UK

External Reviewer, Canada Foundation for Innovation, Canada

External Reviewer, Biomass Canada - Agri-Science Cluster, Agriculture and Agri-Food Canada

External Reviewer, NSERC Discovery Grant, Academic Reviewer

External Reviewer, Technology Investment Program - Special Initiatives, Academic Reviewer, Centre for Research in Earth and Space Technologies (CRESTech)

External Reviewer, Academic Reviewer, US National Science Foundation

External Reviewer, NSERC Collaborative Research Development (CRD) Grants Program

Committee Member, Queen's University Advisory Research Committee (ARC) Subcommittee IV (Member and Chair), Academic Reviewer, Queen’s University, Kingston

External Reviewer, International Polar Year (IPY), Academic Reviewer, Government of Canada

External Reviewer, Land Use Theme Committee, Academic Reviewer, CRESTech

Committee Member, Agricultural / Land Use Evaluation Team, Application Development and Research Opportunities Program, Canadian Space Agency

Tenure and Promotion Assessment Activities

2021/1 - 2021/12	External Reviewer, Department of Geography, University of Victoria
2020/1 - 2020/12	External Reviewer, Department of Geography and Planning, University of Toronto
2019/1 - 2019/12	External Reviewer, Department of Geography, University of Victoria
2018/7 - 2019/6	Chair of Renewal, Tenure and Promotion Committee, Geography and Planning, Queen’s University, Kingston
2017/1 - 2017/12	External Reviewer, Department of Geography and Earth Science, University of North Carolina at Charlotte
2016/1 - 2016/6	External Reviewer, Geography, University of Calgary

2014/1 - 2014/12	External Reviewer, Geography and Environmental Studies, Carleton University
2013/1 - 2013/12	External Reviewer, Department of Geography and Planning, University of Toronto
2013/1 - 2013/12	External Reviewer, Department of Geography, University of Ottawa
2013/1 - 2013/12	External Reviewer, Department of Geography and Planning, University of Toronto Assessed an application by a faculty member for an Early Research Award (ERA).
2012/1 - 2012/12	External Reviewer, Department of Biology, Nipissing University
2012/1 - 2012/12	External Reviewer, College of Science, Rochester Institute of Technology, Rochester, NY
2012/1 - 2012/12	External Reviewer, School of Forest Resources, University of Washington, Washington
2011/6 - 2011/12	External Reviewer, Department of Geography, University of Hawaii at Manoa
2011/6 - 2011/12	External Reviewer, Department of Environmental Resources Engineering, SUNY College of Environmental Science and Forestry, Syracuse, NY
2009/7 - 2009/11	External Reviewer, Asian Institute of Technology, Thailand
2009/7 - 2009/10	External Reviewer, Department of Geography, University of Guelph
2006/1 - 2006/2	External Reviewer, Geography, University of Ottawa Review of a Faculty Member's Nomination for the 2006 University of Ottawa Young Researcher Award
2005/7 - 2005/10	External Reviewer, Geography, University of Ottawa
2004/7 - 2004/10	External Reviewer, Geography, The University of Regina

Organizational Review Activities

2019/1 - 2019/12	External Reviewer, University of Western Ontario Conducted a review of the undergraduate program for the Department of Geography, University of Western Ontario.
2016/1 - 2016/12	External Reviewer, The University of Calgary Conducted a unit review of the Department of Geography, University of Calgary.
2015/1 - 2015/12	External Reviewer, Trent University Conducted a unit review of the Department of Geography, Trent University.
2007/1 - 2007/12	External Reviewer, Carleton University Conducted a review of the undergraduate program for the Department of Geography and Environment at Carleton University
2006/1 - 2006/12	Internal Reviewer, Queen’s University, Kingston Member of the Internal Academic Review Team for the Department of Sociology

International Collaboration Activities

2022/9 - 2022/11	Visiting Researcher in the Department of Earth Science at the University of Göteborg (Gothenburg), Sweden. I presented in their Departmental Seminar Series and delivered lectures in the PhD course – Arctic in a Changing Climate.
2017/9 - 2019/8	Karin van Ewijk and I collaborated with Eva Lindberg and Häkan Olsson at the Swedish University of Agricultural Sciences in Umea, Sweden to extract forest understory vegetation information using airborne laser scanning data.

2018/7 - 2018/8 External Examiner for the PhD defense of Alison Beamish at the Alfred Wegener Institute for Polar and Marine Research in Potsdam, Germany. Dr. Birgit Heim was the candidate's supervisor. The title of the thesis was "Hyperspectral Remote Sensing of the Spatial and Temporal Heterogeneity of Low Arctic Vegetation."

2017/7 - 2018/6 Xiao Zhang was a Visiting Scholar from Nanjing University of Information Science and Technology. We collaborated during his stay at Queen's and published the following:

Zhang, X., P.M. Treitz, D. Chen, C. Quan, L. Shi, and X. Li, 2017. Mapping mangrove forests using multi-tidal remotely sensed data and a decision-tree-based procedure. *International Journal of Applied Earth Observation and Geoinformation*, 62:201-214.

2017/3 - 2017/5 Visiting Researcher at the Arctic Research Centre at Umeå University, Umeå, Sweden. I was a keynote speaker at an Umeå University Symposium that focused on monitoring of Arctic vegetation. I was also invited to give presentations at KTH Royal Institute of Technology (Stockholm) and the University of Lund (Lund).

2016/2 - 2016/2 I was on the Supervisory Committee and an Assessor of the thesis for Raymond Struthers, PhD candidate in the Department of Biosystems at the Katholieke Universiteit Leuven in Leuven, Belgium. Dr. Pol Coppin was the candidate's supervisor. The defense took place in Leuven on February 26, 2016. The title of the thesis was "Modelling Stomatal Oscillation of Fruit Trees using Thermal and Shortwave Infrared Wavelengths."

2012/12 - 2012/12 I was the Opponent for the PhD defense of Marius Hauglin in the Department of Ecology and Natural Resource Management at the Norwegian University of Life Sciences in Ås Norway. Dr. Erik Næsset was the candidate's supervisor. The defense took place in Ås on December 7, 2012. The title of the thesis was "Estimating Forest Biomass Components by Airborne and Terrestrial Laser Scanning."

2011/9 - 2012/8 I supervised a visiting PhD candidate from the University of Helsinki, Finland. Maarit Middleton joined my research team to conduct hyperspectral remote sensing research, resulting in the following publication:

Middleton, M., P. Närhi, H. Arkimaa, E. Hyvönen, V. Kuosmanen, P. Treitz and R. Sutinen, 2012. Ordination and hyperspectral remote sensing approach to classify peatland biotopes along soil moisture and fertility gradients, *Remote Sensing of Environment*, 124:596-609.

2011/10 - 2011/10 I was the Opponent for the PhD defense of Heather Reese in the Department of Forest Resource Management at the Swedish University of Agricultural Sciences in Umeå, Sweden. Dr. Håkan Olsson was the candidate's supervisor. The defense took place in Umeå on October 28, 2011. The title of her thesis was "Classification of Sweden's Forest and Alpine Vegetation Using Optical Satellite and Inventory Data."

2008/9 - 2010/10 I was the lead author on a monograph, published by the American Society for Photogrammetry and Remote Sensing, that included leading researchers in Britain (Sir Paul Curran), Spain (Pablo Zarco-Tejada) and the United States (Valerie Thomas and Peng Gong). This monograph was entitled 'Hyperspectral Remote Sensing for Forestry'.

2003/9 - 2003/10 I was on the Supervisory Committee and served as the External Examiner for Johan Holmgren's PhD thesis entitled "Estimation of Forest Variables using Airborne Laser Scanning." The exam took place at the Swedish University of Agricultural Sciences in Umea, Sweden.

2001/4 - 2001/6 I was a Visiting Researcher in the Department of Forest Resource Management, Division of Forest Remote Sensing at the Swedish University of Agricultural Sciences in Umeå, Sweden. I gave lectures and seminars on remote sensing for forestry.

1997/6	Philip Howarth and I were Invited by the Commonwealth Science Council, UK, and the Natural Resources, Energy and Science Authority of Sri Lanka, Colombo, Sri Lanka to conduct a 6-day Workshop on Remote Sensing for Coastal and Forestry Resource Management (June 4-11, 1997).

Committee Memberships

2016/7 - 2018/6	Chair, Queen's University Biology Station Advisory Committee, Queen's University, Kingston
2013/7 - 2016/6	Committee Member, Queen's University Biology Station Advisory Committee, Queen's University, Kingston
2014/9 - 2015/6	Committee Member, Geography / SURP Task Force, Queen's University, Kingston
2013/7 - 2014/6	Committee Member, Dean's New Budget Model Advisory Committee (NBMAC), Queen's University, Kingston
1999/7 - 2001/6	Committee Member and Chair, GIS Advisory Committee, School of Natural Resources, Sir Sandford Fleming College, Lindsay, Ontario

Other Memberships

1983/1 – 2025/12	Member, Canadian Association of Geographers
1983/1 – 2025/12	Member, The Canadian Remote Sensing Society
2003/1 – 2024/12	Member, Arctic Institute of North America
1991/1 – 2024/12	Member, The Remote Sensing and Photogrammetry Society
1987/1 – 2024/12	Member, American Society of Photogrammetry and Remote Sensing
2005/1 – 2020/12	Member, Canadian Institute of Foresters
1983/1 – 2010/12	Member, Ontario Association of Remote Sensing
1999/4 – 2005/3	Member, Urban and Regional Information Systems Association (URISA)
1996/4 – 2005/3	Member, International Canopy Network

Presentations

1. Treitz, P. (2024). Remote Sensing of Biogeophysical Variables at the Cape Bounty Arctic Research Station, Melville Island, Nunavut, Canada, January 17, 2024, Department of Geography and Planning, Queen's University, Kingston, ON, Canada
2. Treitz, P. (2023). Remote Sensing Contributions to Watershed Science at a Canadian High Arctic Research Station, Remote Sensing and Photogrammetry Society Annual General Meeting, September 5-6, 2023, British Geological Survey, Keyworth, Nottinghamshire, UK
3. Treitz, P. (2022). Remote Sensing Contributions to Watershed Science at a Canadian High Arctic Research Station. Invited lecture in the PhD Course entitled 'Arctic in a Changing Climate', Department of Earth Sciences, University of Gothenburg, Gothenburg, Sweden
4. Treitz, P. (2022). Remote Sensing Environmental Change at the Cape Bounty Arctic Watershed Observatory (CBAWO). Department Seminar Series, Department of Earth Sciences, University of Gothenburg, Gothenburg, Sweden
5. Treitz, P. (2018). Assessment of Wood Attributes from Remote Sensing (AWARE) - Ontario Core Site Report. AWARE Annual General Meeting, Montreal, Canada

6. Treitz, P., Coops, N. (2018). Assessment of Wood Attributes from Remote Sensing - Theme II Research Results. AWARE Showcase Event, Montreal, Canada
7. Treitz, P. (2017). Remote Sensing Research for Forestry in Canada: Assessment of Wood Attributes using Remote Sensing (AWARE) – Perspectives from Queen's University, Kingston, Canada. Special Seminar, Department of Forest Resource Management, Swedish University of Agricultural Sciences, Umeå, Sweden
8. Treitz, P. (2017). Remote Sensing of Environmental Change in the Canadian Arctic. Arctic Research Symposium, Arctic Research Centre at the University of Umeå (ARCUM), Umeå, Sweden
9. Treitz, P. (2017). Remote Sensing of Biogeophysical Variables in the Canadian Arctic: Examining Permafrost, Soil Moisture, Vegetation and Carbon Exchange. Public Lecture, Department of Urban Planning and Environment, KTH Royal Institute of Technology, Stockholm, Sweden
10. Treitz, P. (2017). Remote Sensing of Biophysical Variables and Net Ecosystem Exchange in the Canadian High Arctic. Special Seminar, Department of Physical Geography and Ecosystem Science, University of Lund, Lund, Sweden
11. Treitz, P. (2014). Careers in Geographic Information Science. World GIS Day at Queen's, Kingston, Canada
12. Treitz, P. (2013). Remote Sensing of Biophysical Variables in the Canadian High Arctic - Examining Moisture, Vegetation and Carbon Exchange. Intersections Lecture Series, University of Toronto, Toronto, Canada
13. Treitz, P. (2012). Fine-scale Remote Sensing of Vegetation in the Canadian High Arctic. Arctic Research Symposium, Queen's University, Kingston, Canada
14. Treitz, P. (2011). Forest Resource Inventory in Ontario, Canada: Modelling Forest Structure using Airborne Laser Scanning. Seminar Presentation, Swedish University of Agricultural Sciences, Umea, Sweden
15. Treitz, P. (2010). Remote Sensing for Forest Management: Modelling Forest Structure (using LiDAR/ALS). Seminar Series, Department of Geography and Environmental Studies, Carleton University, Ottawa, ON, Canada
16. Treitz, P. (2010). New Technologies for Enhanced Forest Resource Inventory (eFRI). The Golden Age of Geo-Positioning: Constructing Business Solutions, Niagara College, Niagara-on-the-Lake, ON, Canada
17. Treitz, P., Woods, M., Lim, K., Thomas, V. (2009). LiDAR Remote Sensing for Natural Resources Inventory. Forest Biomass Discovery Workshop - A Gathering of Minds with a Mission: Advancing the Forest Biomass Inventory for Eastern Ontario, Queen's University, Kingston, ON, Canada
18. Treitz, P. (2007). Remote Sensing for Forest Monitoring. Keynote Presentation, Multi-Temp 2007, Leuven, Belgium.
19. Treitz, P., Chasmer, L., Hopkinson, C., Lim, K., Pilger, N., Thomas, V. (2006). Application of Airborne and Ground-based LiDAR Data for Forest Inventory and Monitoring: Are Science Objectives Serving the Forest Industry. Workshop on Integrating New Technology with Forest Operations, Canadian Ecology Centre, Mattawa, Canada
20. Treitz, P., Thomas, V., Lim, K., Corville, P., Pineau, J., Durst, K. (2006). LiDAR Remote Sensing of Forest Canopy Structure: Potential for the Enhanced Forest Resource Inventory. GIS Day, Department of Geography, Queen's University, Kingston, Canada
21. Treitz, P. (2004). Application of LiDAR for Modelling Forest Volume and Biomass. Geomatics for Informed Decisions (GEOIDE) Summer School, Carlton University, Ottawa, Canada
22. Treitz, P. (2004). Three-Dimensional Analysis of Forest Structure and Terrain using LiDAR Technology. New Technology with Forest Operations Workshop, Timmins, Ontario, Canada
23. Treitz, P., Lim, K., Groot, A. (2002). Estimation of Individual Tree Heights using Lidar Remote Sensing. Workshop on Lidar Applications in Forestry, Swedish University of Agricultural Sciences, Umea, Sweden
24. Treitz, P. (2002). LiDAR and Hyperspectral Data for Assessment of Forest Stand Structure and Function. First International Workshop of Lidar for Forestry, Victoria, Canada
25. Treitz, P. (2002). An Overview of Research and Operational Use of Lidar in North America. Workshop on Lidar Applications in Forestry, Swedish University of Agricultural Sciences, Umea, Sweden
26. Treitz, P. (2001). LiDAR Remote Sensing of Forest Ecosystems: Accessing the Third Dimension. Canadian Aeronautics and Space Institute - Kingston Chapter, Kingston, Canada

27. Treitz, P. (2001). Remote Sensing of Forest Ecosystems: A Three-Dimensional Problem. Department of Geography Seminar Series, Queen's University, Kingston, Canada
28. Treitz, P., Howarth, P.J. (1995). Global Positioning System Data for Map Revision – Issues of Accuracy. National Symposium on GIS Technology, Applications and Resources, Department of Geography, University of Madras, Madras, India Publications

Publications and Conferences

Journal Articles (Graduate Students and Postdoctoral Fellows in Bold)

1. Treitz, P., **Atkinson, D., Blaser, A., Bonney, M., Braybrook, C., Buckley, E., Collingwood, A., Edwards, R., Ewijk, van, K., Freemantle, V., Gregory, F.**, Holloway, **J., Hung**, J., Lamoureux, S., **Liu, N., Ljubicic, G., Robson, G., Rudy, A.,** Scott, N., **Shang, C., Wall, J**. (2024). Remote sensing of biogeophysical variables at the Cape Bounty Arctic Watershed Observatory, Melville Island, Nunavut, Canada, *Arctic Science*. 10: 281-304 DOI: 10.1139/as-2023-0043
2. **Hung, J.K.Y**., Scott, N.A., Treitz, P.M. (2024). Drivers of soil nitrogen availability and carbon exchange processes in a High Arctic wetland, *Arctic Science*. 10(1):22-33 DOI: 10.1139/as-2022-0048
3. **Hung, J.K.Y.**, Scott, N.A., Treitz, P.M. (2023). Investigating ten years of warming and enhanced snow depth on nutrient availability and greenhouse gas fluxes in a High Arctic ecosystem. *Arctic, Antarctic, and Alpine Research*. 55(1): 2178428 DOI: 10.1080/15230430.2023.2178428
4. Coops, N.C., Achim, A., Arp, P., Bater, C.W., Caspersen, J.P., Cormier, D., Côte, J-F., Dech, J.P., Dick, A.R., **Ewijk, van K.**, Fournier, R., Goodbody, T.R.H., Hennigar, C.R., Leboeuf, A., Lier, Van O.R., Luther, J.L., MacLean, D.A., McCartney, G., Pelletier, G., Prieur, J-F., Roy, V., Tompalski, P., Treitz, P.M., White, J.C., Woods, M. (2021). Advancing the application of remote sensing for forest information needs in Canada: Lessons learned from a national collaboration of University, Industrial, and Government stakeholders. *Forestry Chronicle*. 97(2): 109-126.
5. **Robson, G.**, Treitz, P.M., Lamoureux, S.F., Murnaghan, K., Brisco, B. (2021). Seasonal surface subsidence and frost heave detected by C-Band DInSAR in a High Arctic environment, Cape Bounty, Melville Island, Nunavut, Canada. *Remote Sensing*. 13(2505).
6. **Braybrook, C.A.**, Scott, N.A., Treitz, P.M., Humphreys, E.R. (2021). Inter-annual variability of summer net ecosystem CO_2 exchange in High Arctic tundra. Journal of Geophysical Research: *Biogeosciences*. 126(e2020JG006).
7. Wright, C.M., **Blaser, A.**, Treitz, P.M., Scott, N.A. (2021). Spatial variability in carbon exchange processes within wet sedge meadows in the Canadian High Arctic. Advances in *Polar Science*. 32(1): 1-19.
8. **Ewijk, van K.**, Tompalski, P., Treitz, P., Coops, N.C., Woods, M., Pitt, D. (2020). Transferability of ALS derived forest resource inventory attributes between an eastern and western Canadian boreal forest mixedwood site. *Canadian Journal of Remote Sensing*. 46(2): 214-236.
9. Bolton, D.K., Tompalski, P., Coops, N.C., White, J.C., Wulder, M.A., Thermosilla, T., Queinnec, M., Luther, J.E., Lier, van O.R., Fournier, R.A., Woods, M., Treitz, P.M., **Ewijk, van K.**, Graham, G., Quist, L. (2020). Optimizing Landsat time series length for regional mapping of lidar-derived forest structure. *Remote Sensing of Environment*. 239(111645).
10. Wai Yeung, Y., **Ewijk, van K.**, Treitz, P., Shaker, A. (2020). Effects of radiometric correction on cover type and spatial resolution for modeling plot level forest attributes using multispectral airborne LiDAR data. *ISPRS Journal of Photogrammetry and Remote Sensing*. 169: 152-165.
11. **Hung J.K.Y.**, Treitz, P.M. (2020). Environmental land-cover classification for integrated watershed studies: Cape Bounty, Melville Island, Nunavut. *Arctic Science*. 6: 404-422.
12. **Marczak, P.T.**, **Ewijk, van K.**, Treitz, P.M., Scott, N.A., Robinson, D.C.E. (2020). Predicting carbon accumulation in temperate forests of Ontario, Canada using a LiDAR-initialized growth-and-yield model. *Remote Sensing*. 12(201).
13. **Atkinson, D.M.**, **Hung, J.K.Y.**, **Gregory, F.M.**, Scott, N.A., Treitz, P.M. (2020). High spatial resolution remote sensing models for landscape-scale CO2 exchange in the Canadian Arctic. *Arctic, Antarctic, and Alpine Research*. 52(1): 1-16.

14. Goodbody, T.R.H., Tompalski, P., Coops, N.C., Hopkinson, C., Treitz, P., **Ewijk, van K.** (2020). Forest inventory and diversity attribute modelling using structural and intensity metrics from multi-spectral airborne laser scanning data. *Remote Sensing*. 12(2109).
15. **Freemantle, V.**, Freemantle, J., **Atkinson, D.**, Treitz, P. (2020). A high spatial resolution satellite remote sensing time series analysis of Cape Bounty, Melville Island, Nunavut (2004-2018). *Canadian Journal of Remote Sensing*. 46(6): 733-752.
16. **Shang, C.**, Treitz, P.M., Casperson, J., Jones, T. (2019). Estimation of forest structural and compositional variables using ALS data and multi-seasonal satellite imagery. *International Journal of Applied Earth Observations and Geoinformation*. 78: 360-371.
17. **Ewijk, van K.**, Treitz, P., Woods, M., Caspersen J., Jones, T. (2019). Forest site and type variability in ALS based forest resource inventory attribute predictions over three Ontario forest sites. Forests. 10(3).
18. **Collingwood, A.**, Charbonneau, F., **Shang, C.**, Treitz, P.M. (2018). Spatiotemporal variability of Arctic soil moisture detected from high resolution RADARSAT-2 SAR data. *Advances in Meteorology*. http://dx.doi.org/10.1155/2018/5712046
19. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P.M., Short, N., Brisco, B. (2018). Seasonal and multi-year surface displacements measured by DInSAR in a high Arctic permafrost environment. *International Journal of Applied Earth Observation and Geoinformation*. 64: 51-61.
20. **Bonney, M.T.**, Danby, R.K., Treitz, P.M. (2018). Landscape variability of vegetation change across the forest to tundra transition of central Canada. *Remote Sensing of Environment*. 217: 18-29.
21. **Liu, N.**, Treitz, P.M. (2018). Remote sensing of Arctic percent vegetation cover and *f*APAR on Baffin Island, Nunavut, Canada. *International Journal of Applied Earth Observation and Geoinformation*. 71:159-169.
22. Zhang, X., Treitz, P.M., Chen, D., Quan, C., Shi, L., Li, X. (2017). Mapping mangrove forests using multi-tidal remotely sensed data and a decision-tree-based procedure. *International Journal of Applied Earth Observation and Geoinformation*. 62: 201-214.
23. **Edwards, R.**, Treitz, P.M. (2017). Vegetation greening trends at two sites in the Canadian Arctic: 1984-2015. *Arctic, Antarctic and Alpine Research*. 49(4): 601-619.
24. Holloway, J.E., **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P.M. (2017). Determining the terrain characteristics related to surface expression of subsurface water pressurization in permafrost landscapes using susceptibility modelling. *The Cryosphere*. 11: 1403-1415.
25. **Shang, C.**, Treitz, P.M., Caspersen, J., Jones, T. (2017). Estimating stem diameter distributions in a management context for a tolerant hardwood forest using ALS height and intensity data. *Canadian Journal of Remote Sensing*. 43(1): 79-94.
26. **Liu, N.**, Budkewitsch, P., Treitz, P.M. (2017). Examining spectral reflectance features related to Arctic percent vegetation cover: Implications for hyperspectral remote sensing of Arctic tundra. *Remote Sensing of Environment*. 192: 58-72.
27. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P.M., **Ewijk, van K.**, Bonnaventure, P., Budkewitsch, P. (2017).
28. Terrain controls and landscape-scale modelling of active-layer detachments, Sabine Peninsula, Melville Island, Nunavut. *Permafrost and Periglacial Processes*. 28: 79-91.
29. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P.M., **Ewijk, van K.** (2016). Transferability of regional permafrost disturbance susceptibility modelling using generalized linear and generalized additive models. *Geomorphology*. 264: 95-108.
30. **Liu, N.**, Treitz, P.M. (2016). Modelling High Arctic percent vegetation cover using field digital images and high-resolution satellite data. *International Journal of Applied Earth Observation and Geoinformation*. 52: 445-456.
31. Gökkaya, K., **Thomas, V.**, Noland, T., McCaughey, J.H., Treitz, P.M., Morrison, I. (2015). Prediction of macronutrients at the canopy level using spaceborne imaging spectroscopy and lidar data in a mixedwood boreal forest. *Remote Sensing*. 7: 9045-9069.
32. Gökkaya, K., **Thomas, V.**, Noland, T., McCaughey, J.H., Morrison, I., Treitz, P.M. (2015). Mapping continuous forest type variation by means of correlating remotely sensed metrics to canopy N:P ratio in a boreal mixedwood forest. *Applied Vegetation Science*. 18(1): 143-157.
33. **Tamminga, A.**, Scott, N.A., Treitz, P.M., Woods, M. (2014). A biogeochemical examination of Ontario's boreal forest ecosite classification system. *Forests*. 5: 325-346.
34. **Collingwood, A.**, Treitz, P.M., Charbonneau, F. (2014). Surface roughness estimation from RADARSAT-2 data in a high Arctic environment. *International Journal of Applied Earth Observation and Geoinformation*. 27: 70-80.

35. Gökkaya, K., **Thomas, V.**, Noland, T., McCaughey, J.H., Treitz, P.M. (2014). Testing the robustness of predictive models for chlorophyll generated from spaceborne imaging spectroscopy data for a mixedwood boreal forest canopy. *International Journal of Remote Sensing*. 35(1): 218-233.
36. **Collingwood, A.**, Treitz, P.M., Charbonneau, F., **Atkinson, D.M.** (2014). Artificial neural network modeling of high Arctic phytomass using synthetic aperture radar and multispectral data. *Remote Sensing*. 6: 2134-2153.
37. **Ewijk, van K.**, Randin, C.F., Treitz, P.M., Scott, N.A. (2014). Predicting fine-scale tree species abundance patterns using biotic variables derived from LiDAR and high spatial resolution imagery. *Remote Sensing of Environment*. 150: 120-131.
38. **Atkinson, D.**, Treitz, P.M. (2013). Modelling biophysical variables across an Arctic latitudinal gradient using high spatial resolution remote sensing data. *Arctic, Antarctic and Alpine Research*. 45(2): 161-178.
39. **Pope, G.**, Treitz, P.M. (2013). Leaf area index (LAI) estimation in boreal mixedwood forest of Ontario, Canada using light detection and ranging (LiDAR) and WorldView-2 imagery. *Remote Sensing*. 5(10): 5040-5063.
40. **Rudy, A.C.A.**, Lamoureux, S., Treitz, P.M., **Collingwood, A.** (2013). Identifying permafrost slope disturbance using multi-temporal optical satellite images and change detection techniques. *Colds Regions Science and Technology*. 88: 37-49.
41. **Southee, F.**, Treitz, P.M., Scott, N. (2012). Application of LIDAR terrain surfaces for soil moisture modeling. *Photogrammetric Engineering & Remote Sensing*. 78(12): 1241-1251.
42. **Maher, A.**, Treitz, P.M., Ferguson, M. (2012). Can Landsat data detect variations in snow cover within habitats of Arctic ungulates? *Wildlife Biology*. 18(1): 1-13.
43. **Atkinson, D.**, Treitz, P.M. (2012). Arctic ecological classifications derived from vegetation community and satellite spectral data. *Remote Sensing*. 4: 3948-3971.
44. **Middleton, M.**, Närhi, P., Arkimaa, H., Hyvönen, E., Kuosmanen, V., Treitz, P.M., Sutinen, R. (2012). Ordination and hyperspectral remote sensing approach to classify peatland biotopes along soil moisture and fertility gradients. *Remote Sensing of Environment*. 124: 596-609.
45. Treitz, P.M., **Lim, K.**, Woods, M., Pitt, D., Nesbitt, D., Etheridge, D. (2012). LiDAR sampling intensity for forest resource inventories in Ontario, Canada. *Remote Sensing*. 4(4): 830-848.
46. **Ewijk, van K.**, Treitz, P., Scott, N. (2011). Characterizing forest succession in central Ontario using LiDAR derived indices. *Photogrammetric Engineering and Remote Sensing*. 77(3): 261-269.
47. Woods, M., Pitt, D., **Lim, K.**, Nesbitt, D., Etheridge, D., Penner, M., Treitz, P. (2011). Operational implementation of a LiDAR inventory in Boreal Ontario. *Forestry Chronicle*. 87(4): 512-528.
48. **Thomas, V.**, Noland, T., Treitz, P., McCaughey, J.H. (2011). Leaf area and clumping indices for a boreal mixedwood forest: lidar, hyperspectral, and Landsat models. *International Journal of Remote Sensing*. 32(23): 8271-8297.
49. **Wall, J.**, **Collingwood, A.**, Treitz, P. (2010). Monitoring surface moisture state in the Canadian High Arctic using synthetic aperture radar (SAR). *Canadian Journal of Remote Sensing*. 36: S124-S134.
50. **Chasmer, L.**, Barr, A., Black, A., McCaughey, J.H., Shaskov, A., Treitz, P., Zha, T. (2009). Scaling and assessment of GPP from MODIS using a combination of airborne lidar and eddy covariance measurements over jack pine forests. *Remote Sensing of Environment*. 113: 82-93.
51. **Thomas, V.**, McCaughey, J.H., Treitz, P., Finch, D., Noland, T., Rich, L. (2009). Spatial modelling of photosynthesis for a boreal mixedwood forest by integrating micrometeorological, lidar and hyperspectral remote sensing data. *Agriculture and Forest Meteorology*. 149: 639-654.
52. **Chasmer, L.**, Hopkinson, C., Treitz, P., McCaughey, J.H., Barr, A., Black, A. (2008). A LiDAR-based hierarchical approach to assessing MODIS fPAR. *Remote Sensing of Environment*. 112: 4344-4357.
53. **Chasmer, L.**, Barr, A., Black, A., McCaughey, J.H., Shaskov, A., Treitz, P. (2008). Investigating light use efficiency (LUE) across a jack pine chronosequence during dry and wet years. *Tree Physiology*. 28: 1395-1406.
54. **Thomas, V.**, Treitz, P., McCaughey, J.H., Noland, T., Rich, L. (2008). Canopy chlorophyll concentration estimation using hyperspectral and lidar data for a boreal mixedwood forest in northern Ontario, Canada. *International Journal of Remote Sensing*. 29(4): 1029-1052.
55. Woods, M., **Lim, K.**, Treitz, P. (2008). Predicting forest stand variables from LiDAR data in the Great-Lakes St. Lawrence Forest of Ontario. *Forestry Chronicle*. 84(6): 827-839.
56. **Chasmer, L.**, Kljun, N., Barr, A., Black, A., **Hopkinson, C.**, McCaughey, J.H., Treitz, P. (2008). Influences of vegetation structural and elevation on CO2 uptake within a mature jack pine forest in Saskatchewan, Canada. *Canadian Journal of Forest Research*. 38: 2746-2761.

57. **Lim, K.**, **Hopkinson, C.**, Treitz, P. (2008). Examining the effects of sampling point densities on laser canopy height and density metrics for forest studies at the plot level. *Forestry Chronicle*. 84(6): 876-885.
58. **Laidler, G.**, Treitz, P., **Atkinson, D.M.** (2008). Remote sensing of Arctic vegetation: relations between the NDVI, spatial resolution and vegetation cover on Boothia Peninsula, Nunavut. *Arctic*. 6(1): 1-13.
59. Lamoureux, S.F., McDonald, D.M., Cockburn, J.M.H., Lafreniere, M., **Atkinson, D.**, Treitz, P. (2006). An incidence of multi-year sediment storage on channel snowpack in the Canadian High Arctic. *Arctic*. 59(4): 381-390.
60. **Chasmer, L.**, **Hopkinson, C.**, Treitz, P. (2006). Investigating laser pulse penetration through a conifer canopy by integrating airborne and terrestrial lidar. *Canadian Journal of Remote Sensing*. 32(2): 116-125.
61. **Prenzel, B.**, Treitz, P. (2006). Spectral and spatial filtering for enhanced thematic change analysis of remotely sensed data. *International Journal of Remote Sensing*. 27(5): 835-854.
62. **Thomas, V.**, Treitz, P., McCaughey, J.H., Morrison, I. (2006). Mapping stand-level forest biophysical variables for a mixedwood boreal forest using LiDAR: an examination of scanning density. *Canadian Journal of Forest Research*. 36: 34-47.
63. **Chasmer, L.**, **Hopkinson, C.**, Treitz, P. (2006). Examining the influence of changing laser pulse repetition frequencies on conifer forest canopy returns. *Photogrammetric Engineering and Remote Sensing*. 72(12): 1359-1367.
64. **Thomas, V.**, Finch, D., McCaughey, J.H., Noland, T., Rich, L., Treitz, P. (2006). Spatial modelling of the fraction of photosynthetically active radiation absorbed by a boreal mixedwood forest using a lidar-hyperspectral approach. *Agriculture and Forest Meteorology*. 140: 287-307.
65. **Hopkinson, C.**, **Chasmer, L.**, **Lim, K.**, Treitz, P., Creed, I. (2006). Towards a universal lidar canopy height indicator. *Canadian Journal of Remote Sensing*. 32(2): 139-152.
66. **Prenzel, B.**, Treitz, P. (2005). Comparison of function- and structure-based schemes for classification of remotely sensed data. *International Journal of Remote Sensing*. 26(3): 543-561.
67. **Hopkinson, C.**, **Chasmer, L.**, Zsigovics, G., Creed, I., Sitar, M., Kalbfleisch, W., Treitz, P. (2005). Vegetation class dependent errors in lidar ground elevation and canopy height estimates in a boreal wetland environment. *Canadian Journal of Remote Sensing*. 31(2): 191-206.
68. **Lim, K.**, Treitz, P. (2004). Estimation of above-ground forest biomass from airborne discrete return laser scanner data using canopy-based quantile estimators. *Scandinavian Journal of Forest Research*. 19: 558-570.
69. **Hopkinson, C.**, **Chasmer, L.**, Young-Pow, C., Treitz, P. (2004). Assessing forest metrics with a ground-based scanning LiDAR. *Canadian Journal of Forest Research*. 34: 573-583.
70. Treitz, P. (2004). Epilogue. Progress in Planning. 61(3): 383-384.
71. **Prenzel, B.**, Treitz, P. (2004). Remote sensing of land-cover and land-use change for a complex tropical watershed in North Sulawesi, Indonesia. *Progress in Planning*. 61(3): 349-363.
72. **Hopkinson, C.**, Sitar, M., **Chasmer, L.**, Treitz, P. (2004). Mapping snowpack depth beneath forest canopies using airborne LiDAR. *Photogrammetric Engineering and Remote Sensing*. 70(3): 323-330.
73. Treitz, P., Rogan, J. (2004). Remote sensing for mapping and monitoring land-cover and land-use change: an introduction. *Progress in Planning*. 61(3): 269-279.
74. **Laidler, G.J.**, Treitz, P. (2003). Biophysical remote sensing of Arctic environments. *Progress in Physical Geography*. 27(1): 44-68.
75. **Lim, K.**, Treitz, P., Baldwin, K., Morrison, I., Green, J. (2003). LiDAR remote sensing of biophysical properties of tolerant northern hardwood forests. *Canadian Journal of Remote Sensing*. 29(5): 658-678.
76. **Lim, K.**, Treitz, P., Wulder, M., St.-Onge, B., Flood, M. (2003). LiDAR remote sensing of forest structure. *Progress in Physical Geography*. 27(1): 88-106.
77. **Thomas, V.**, Treitz, P., Jelinski, D., Miller, J., Lafleur, P., McCaughey, H. (2002). Image classification of a northern peatland complex using spectral and plant community data. *Remote Sensing of Environment*. 84: 83-99.
78. **Sampson, P.H.**, Treitz, P.M., Mohammed, G.H. (2001). Remote sensing of forest condition: an examination of scale, structure and function. *Canadian Journal of Remote Sensing*. 27(3): 232-246.
79. Treitz, P. (2001). Variogram analysis of high spatial resolution remote sensing data: an examination of boreal forest ecosystems. *International Journal of Remote Sensing*. 22(18): 3895-3900.

80. **Sampson, P.H**., Mohammed, G.H., Zarco-Tejada, P.J., Miller, J.R., Noland, T.L., Irving, D., Treitz, P.M., Colombo, S.J., Freemantle, J. (2000). The Bioindicators of Forest Condition Project: A physiological, remote sensing approach. *Forestry Chronicle*. 76(6): 941-952.
81. Treitz, P., Howarth, P. (2000). Integrating spectral, spatial, and terrain variables for forest ecosystem classification. *Photogrammetric Engineering and Remote Sensing*. 66(3): 305-317.
82. Massam, B., **Prenzel, B.**, **Thomas, V.**, Treitz, P. (2000). Quality of life surface: an application of two techniques. *Journal of Geographic Information and Decision Analysis*. 4: 12-26.
83. Treitz, P.M., Howarth, P.J., Rotunno Filo, O., Soulis, E.D. (2000). Agricultural crop classification using SAR tone and texture statistics. *Canadian Journal of Remote Sensing*. 26(1): 18-29.
84. Treitz, P., Howarth, P. (2000). High spatial resolution remote sensing data for forest ecosystem classification: an examination of spatial scale. *Remote Sensing of Environment*. 72: 268-289.
85. Treitz, P.M., Howarth, P.J. (1999). Hyperspectral remote sensing for estimating biophysical parameters of forest ecosystems. *Progress in Physical Geography*. 23(3): 359-390.
86. Rotunno, Filho, O.C., Treitz, P.M., Soulis, E.D., Howarth, P.J., Louwen, N. (1996). Texture processing of synthetic aperture radar data using second-order spatial statistics. *Computers and Geosciences*. 22(2): 27-34.
87. Ban, Y., Treitz, P.M., Howarth, P.J., Brisco, B., Brown, R. (1995). Improving accuracy of synthetic aperture radar for agricultural cop classification. *Canadian Journal of Remote Sensing*. 21(2): 158-164.
88. Treitz, P.M., Elliot, L., Howarth, P.J. (1993). Differential GPS: Potential for GIS Database Management. *Environment and Planning A*. 25: 883-898.
89. Treitz, P.M., Howarth, P.J., Suffling, R.C., Smith, P. (1992). An ecological approach to detailed vegetation mapping with high resolution data. *Remote Sensing of Environment*. 42(1): 65-82.
90. Treitz, P.M., Howarth, P.J., Gong, P. (1992). Application of satellite and GIS technologies for land-cover and land-use mapping at the rural-urban fringe: a case study. *Photogrammetric Engineering and Remote Sensing*. 58(4): 439-448.
91. Wang, J., Treitz, P.M., Howarth, P. (1992). Road network detection from SPOT imagery for updating GIS in the rural-urban fringe. *International Journal of Geographic Information Systems*. 6(2): 141-157.
92. Treitz, P.M., Elliot, M.L., Howarth, P.J. (1991). Global Position System (GPS) data for map revision. *Operational Geographer*. 9(1): 14-18.

Journal Issues - Editor

1. (2021). Advances in Terrestrial Remote Sensing of Arctic Environments. *Remote Sensing*. 13, Editors: Treitz, P., Reese, H.
2. (2010). Special Issue for the International Polar Year (IPY). *Canadian Journal of Remote Sensing*. 36 (S1): 210. Editors: Derksen, C., Treitz, P.
3. (2004). Remote Sensing for Mapping and Monitoring Land-Cover and Land-Use Change. *Progress in Planning*. 61(3): 123. Editor: Treitz, P.

Books/Monographs

1. Treitz, P., Thomas, V., Zarco-Tejada, P., Gong, P., Curran, P. (2010). **Hyperspectral Remote Sensing for Forestry**. American Society for Photogrammetry and Remote Sensing, Bethesda, Maryland, United States

Book Chapters

1. Prenzel, B., Treitz, P., LeDrew, E. (2005). Remote Sensing for Environmental Monitoring and Management in the Tropics: A Case Study of the Tondano Watershed. Wismer, S., Babcock, T., Nurkin, B., From Sky to Sea - Environment and Development in Sulawesi, Indonesia. (Pub. Series No. 61): 383-409. Department of Geography, University of Waterloo, Waterloo, Canada
2. St-Onge, B., Treitz, P., Wulder, M.A. (2003). Tree and Canopy Height Estimation with Scanning LiDAR (Light Detection and Ranging). Wulder, M.A., Franklin, S.E., Remote Sensing of Forest Environments - Concepts and Case Studies. pp. 489-509. Kluwer Academic Publishers, Boston, United States

Thesis/Dissertation

1. **Boreal Forest Ecosystem Characterization at Site and Landscape Scales using Multispatial Resolution Remote Sensing Data**. (1997). University of Waterloo. Doctorate. Number of Pages: 297
2. **The Capabilities of Two Airborne Multispectral Sensors for Identifying Coniferous Forest Species**. (1986). University of Waterloo. Master's Thesis. Number of Pages: 181

Textbook Entries

1. Treitz, P.M. (2001). Mapping Forest Ecosystems and their Biophysical Characteristics with Remote Sensing. In **Physical Geography, Science and Systems of the Human Environment**. 2nd, Strahler, A., Strahler, A. pp. 658-660. John Wiley and Sons, Ltd.

Magazine Entries

1. Treitz, P., (2024). Climate Change in the Arctic, Futurum:" Inspiring the Next Generation, Issue 29 p. 64-67.
2. Laidler, G., Treitz, P. (2003). Space Mapping of the Arctic Tundra. Geo:Connexion. 2(5): 38-40.
3. Laidler, G., Treitz, P. (2002). Imagery Maps Arctic Tundra Environment. Imaging Notes. 17(5): 26-28.

Reports

1. Treitz, P. (2003). **A Review of the Southern Ontario Land Resources Information Systems (SOLRIS)**. Ministry of Natural Resources, Province of Ontario. [This external review was instrumental for the agencies involved to formulate a long-term implementation plan for compiling land cover and land use information using remote sensing data to meet land-based resource goals and objectives.]
2. Treitz, P., Howarth, P.J. (1996). **Remote Sensing for Forest Ecosystem Classification: A Review**, Natural Resources Canada, Canadian Forest Service – Sault Ste. Marie, Sault Ste. Marie, Ontario. NODA/NFP Technical Report TR-12.
3. Treitz, P. (1998). **Hyperspectral Sensing for Forest Canopy Ecosystems: A Review**, In Hyperspectral Imager Technology Assessment (HITA), Forest Applications Development Final Report, MacDonald Dettwiler, Contract to Canadian Space Agency, Reference RX-RP-50-9225.
4. Treitz, P.M., Kalnins, V., Howarth, P.J. (1997). **Boreal Forest Ecosystem Characterization at Site and Landscape Scales using Multispatial Resolution Remote Sensing Data**, Natural Resources Canada, Canadian forest Service, Great Lakes Forestry Centre, Sault Ste. Marie, Sault Ste. Marine, Ontario, NODA File Report #38, 126 p.
5. Kalnins, V.J., Treitz, P., Howarth, P.J. (eds). (1994). **Rinker Lake Data report: 1993-1994**, Earth - Observations Technical Report, ISTS-EOL-TR94-002, Department of Geography, University of Waterloo, Ontario
6. Treitz, P.M. (1993). **Remote Sensing for Forest Ecosystem Characterization**, Earth-Observations Technical Report, ISTS-EOL-TR93-009, Department of Geography, University of Waterloo, Ontario, 72 p.
7. Kalnins, V.J., Treitz, P.M., Howarth, P.M. (1993). **Rinker Lake Data Report – 1993**, Earth-Observations Technical Report, ISTS-EOL-TR93-008, Department of Geography, University of Waterloo, Ontario, 72 p.
8. Treitz, P.M. (1992). **A Summary of Methodologies used for the Generation of SPOT Image Enhancements for Phase Two of the Nigerian Project – Vegetation Enhancements, SPOT Data Integration into SPANS GIS**, **Addendum to the Final Report**, Integrated Spatial Data Systems, A report prepared for the University of Lagos, Lagos, Nigeria
9. Treitz, P.M. (1991). **A Summary of Methodologies used for the Generation of SPOT Image Enhancements for Phase Two of the Nigerian Project Final Report**, Integrated Spatial Data Systems, A report prepared for the University of Lagos, Lagos, Nigeria

Technology Transfer

1. Treitz, P., (2024). Climate Change in the Arctic, *Futurum: Inspiring the Next Generation*, Issue 29, p. 64-67.
2. Treitz, P., Howarth, P.J., (1997). A 6-day Workshop on Remote Sensing for Coastal and Forestry Resource Management, Sponsored by the Commonwealth Science Council, UK, and the Natural Resources, Energy and Science Authority of Sri Lanka, Colombo, Sri Lanka, June 4-11, 1997.

3. Stermann, R., Treitz, P. (1997). Flood Monitoring / Change Detection Analysis Utilizing Desktop Software and Radar Imagery, A one-day workshop conducted at the Urban and Regional information Systems, (URISA'97) 35th Annual Conference and Exposition – Acting Locally, Connecting Globally, July 19-23.
4. Treitz, P. (1988). Remote Sensing – Digital Image Analysis and Data Management, A one-day workshop conducted for the Association of Canadian Map Libraries and Archives, 22nd Annual Conference, Trent University, Peterborough, Ontario, June 7-11.

Conference Oral and Poster Presentations

1. **Kuzmich, R.**, Hill, R., Hinsley, S., Bellamy, P., Barnes, A., Melin, M., Treitz, P. (2025). Effects of Airborne Laser Scanning (ALS) Point Density on Bird Habitat Metric Extraction. Silvlaser 2025, Quebec City, PQ, Canada
2. **Kuzmich, R.**, Hill, R., Hinsley, S., Bellamy, P., Barnes, A., Melin, M., Treitz, P. (2025). The Influence of Abundance on Within-Patch Breading Season Habitat Characteristics for Chiffchaff. Frontiers in Ornithology: British Ornithologist' Union 2025, University of Nottingham, UK
3. **Yaacoub, S.**, Danby, R., & Treitz, P. (2024). Towards Improved Mapping of Bark Beetle-Disturbed Forests [Poster presentation]. ABoVE Science Team Meeting 10, Boulder, Colorado, United States. May 21-24. https://cce-datasharing.gsfc.nasa.gov/conferences/posteragenda/41/h/0/#sess_id_6
4. **Kuzmich, R.**, Hill, R., Treitz, P., Bellamy, P., Hinsley, S. (2023). Changes to the Availability of Chiffchaff and Willow Warbler Habitat with Passive Rewilding, Silvilaser 2023, University College London, September 6-8, 2023, London, UK
5. **Kuzmich, R.**, Hill, R., Treitz, P., Bellamy, P., Hinsley, S. (2023). Combining Spectral and Structural Remote Sensing Data Time Series to Examine Bird Habitat, GEO BON Global Conference: Monitoring Biodiversity for Action, October 10-13, Montreal, Quebec, Canada
6. **Yaacoub, S.**, Danby, R., Treitz, P. (2023). Assessing Disturbance Dynamics of Infested Forests in Kluane, YT, Queen's Northern Research Symposium – Science and Society in Northern Research, April 18, 2023, Queen's University, Kingston, Canada
7. **Yaacoub, S.**, Danby, R., Treitz, P. (2022). Assessing Bark Beetle Impacts on Forests in Kluane, Yukon. ArcticNet Annual Scientific Meeting 2022 Conference, December 4-8, 2022, Toronto, ON, Canada https://doi.org/10.1139/as-2023-0007
8. **Yaacoub, S**., Danby, R., Treitz, P., (2022). Assessment of Spruce Bark Beetle Impacts on Boreal Forests in Southwest Yukon through Fusion of AVIRIS-NG and LVIS-Facility Data, National Aeronautics and Space Administration (NASA) Arctic Boreal Vulnerability Experiment (ABoVE) Science Team Meeting 8, May 9-13, Fairbanks, AK, USA https://cce-datasharing.gsfc.nasa.gov/conferences/absbyid/94/31/h/1/
9. **Yaacoub, S.**, Danby, R., Treitz, P. (2021). Modeling Canopy Nitrogen and High Arctic Productivity using Hyperspectral Remote Sensing. Queen's Northern Research Symposium – Many Sciences, Many Peoples, April 13, 2021, Queen's University, Kingston, Canada
10. **Hung, J.K.Y**., Scott, N.A., Treitz, P. (2021). Soil Nitrogen Dynamics can Alter Carbon Exchange Processes in a High Arctic Wetland. 2021 Queen's Northern Research Symposium, Kingston ON, Canada
11. **Hung, J.K.Y**., Treitz, P., Scott, N. (2021). Soil Moisture Inputs from Enhanced Snowfall Impact Nitrogen Availability and the Greenhouse Gas Balance of High Arctic Mesic Tundra. American Geophysical Union, Fall Meeting, New Orleans, United States
12. **Yaacoub, S**., Hung, J. KY., Treitz, P., Scott, N. (2021). Using variations in High Arctic vegetation spectral properties to predict various types of plant, soil, and environmental variables [Conference session]. 15th Inquiry@Queen's Undergraduate Research Conference, Kingston, ON, Canada. https://doi.org/10.24908/iqurcp.14722
13. **Kuzmich, R**., Hill, R., Treitz, P., Bellamy, P., Hinsley, S. (2021). Ecologically Informed Bird Habitat Characterization with Airborne Laser Scanning. Silvilaser 2021, Vienna, Austria, Conference Date: 2021/9
14. **Hung, J.K.Y**., Scott, N.A., Treitz, P. (2021). The Impact of Soil Nitrogen Availability on Trace Gas Fluxes and Net Greenhouse Gas Balance in a High Arctic Wetland. Canadian Geophysical Union Seminar Series, Kingston, Canada
15. **Kuzmich, R**., Hill, R., Treitz, P., Bellamy, P., Hinsley, S. (2021). Changing Forests and the Bird Species Living Within Them. Ontario Ecology, Ethology, and Evolution Colloquium, Guelph, Canada
16. **Hung, J.K.Y**., Scott, N.A., Treitz, P. (2021). Soil Nitrogen Dynamics can Alter Carbon Exchange Processes in a High Arctic Wetland. Queen's Northern Research Symposium, Kingston, Canada

17. **Ewijk, van K.**, Yan, W.Y., Treitz, P., Shaker, A. (2020). Effects of Radiometric Correction on Cover Type and Spatial Resolution for Modeling Plot Level Forest Attributes using Multispectral Airborne LiDAR Data. AWARE Annual General Meeting, Toronto, Canada
18. **Braybrook, C.A.**, Scott, N.A., Treitz, P., Humphreys, E.R. (2019). Inter-Annual Growing Season Variability of Net Ecosystem CO2 Exchange in High Arctic Mesic Tundra: 2008-2018. ArcticNet Annual Scientific Meeting, Halifax, Canada
19. **Kuzmich, R.**, Treitz, P., Hill, R. (2019) Characterizing Forest Succession at Monks Wood (UK) Using Airborne Laser scanning. Canadian Association of Geographers, Ontario Division (CAGONT) 2019 Conference, Toronto, ON
20. **Ewijk, van K.**, Tompalski, P., Treitz, P., Coops, N., Woods, M., Pitt, D. (2019). Transferability of Forest Resource Inventory Attributes derived from LiDAR in the Canadian Boreal Forest. Silvilaser 2019, Iguazu Falls, Brazil
21. **Braybrook, C.A.**, Scott, N.A., Treitz, P., Humphreys, E.R. (2019). Modelling Growing Season Net Ecosystem Exchange (NEE) for High Arctic Mesic Tundra using High Resolution Remote Sensing Data. American Geophysical Union Chapman Conference on Understanding Carbon Climate Feedbacks, San Diego, United States
22. **Freemantle, V.**, Treitz, P., **Atkinson, D.** (2019). A Time-Series Analysis of High Spatial Resolution Data at Cape Bounty, Nunavut (2004-2018). Queen's Northern Research Symposium, Kingston, Canada
23. **Ewijk, van K.**, Tompalski, P., Treitz, P., Coops, N., Woods, M., Pitt, D. (2019). Transferability of Forest Resource Inventory Attributes derived from LiDAR in the Canadian Boreal Forest. Emerging Research Seminar Series, Queen's University, Kingston, Canada
24. **Ewijk, van K.**, Tompalski, P., Treitz, P., Coops, N.C., Woods, M., Pitt, D. (2018). Transferability of ALS derived Forest Resource Inventory Variables from Eastern to western Mixedwoods in the Canadian Boreal Forest. ForestSAT 2018, College Park, United States
25. **Kuzmich, R.**, Treitz, P. (2018). Identifying Cerulean Warbler Habitat from Forest Structure using Airborne Laser Scanning. ForestSAT 2018, College Park, United States
26. Treitz, P., **Atkinson, D.**, **Collingwood, A.**, **Edwards, R.**, **Freemantle, V.**, Lamoureux, S., **Liu, N.**, **Rudy, A.**, Scott, N. (2018). Remote Sensing of Environmental Change at Local Scales in the Canadian High Arctic. EUMETSAT Meteorological Satellite Conference, Tallin, Estonia
27. **Freemantle, V.**, Treitz, P., **Atkinson, D.**, **Gregory, F.** (2018). Vegetation Change in the Canadian High Arctic: A High Spatial Resolution Time Series Analysis. Canadian Association of Geographers Annual General Meeting, Quebec City, Canada
28. **Marczak, P.**, Scott, N., Treitz, P. (2018). Coupling LiDAR Data with a Growth and Yield Model for Spatially Extensive Estimates of Forest Growth in Ontario. Canadian Association of Geographers Annual General Meeting, Quebec City, Canada
29. **Ewijk, van K.**, Lindberg, E., Treitz, P., Woods, M. (2018). Species-Specific Diameter Distribution Modeling in a Complex Forest Ecosystem using a Multi-level ITC Approach and ABA Metrics. Assessment of Wood Attributes using Remote Sensing (AWARE) Annual General Meeting, Montreal, Canada
30. **Ewijk, van K.**, Tompalski, P., Treitz, P., Coops, N.C., Woods, M., Pitt, D. (2018). Transferability of ALS-derived Forest Resource Inventory Variables from Eastern to Western Mixedwoods in the Canadian Boreal Forest. Assessment of Wood Attributes from Remote Sensing (AWARE) Annual General Meeting, Montreal, Canada
31. **Kuzmich, R.**, Treitz, P. (2018). Identifying Cerulean Warbler Habitat from Forest Structure using Airborne Laser Scanning. Queen's University Biology Station Open House, Kingston, Canada
32. **Freemantle, V.**, Treitz, P., **Atkinson, D.**, **Gregory, F.** (2018). Vegetation Productivity at Cape Bounty, Melville Island, NU: A 13-Year High Spatial Resolution Satellite NDVI Time Series Analysis. Queen's Northern Research Symposium, Kingston, Canada
33. **Freemantle, V.**, Treitz, P., **Atkinson, D.**, **Gregory, F.** (2017). Vegetation Productivity at Cape Bounty, Melville Island, NU: A High Spatial Resolution NDVI Time Series Analysis (2003-2016). Arctic Change 2017, Quebec City, Canada
34. **Marczak, P.**, Scott, N., Treitz, P. (2017). Improving Predictions of Aboveground Forest Carbon Accumulation Rates in Southeastern Ontario Forests. Latornel Conservation Symposium, Alliston, Canada

35. **Ewijk, van K.**, Lindberg, E., Treitz, P., Woods, M. (2017). Species-Specific Diameter Distribution Modeling using a Hybrid ABA-ITC Approach in a Complex Forest Ecosystem. Canadian Association of Geographers - Ontario Division Annual General Meeting, Kingston, Canada
36. **Marczak, P.**, Scott, N., Treitz, P. (2017). Improving Predictions of Above-ground Forest Carbon Accumulation Rates in a southeastern Ontario Forest. Canadian Association of Geographers – Ontario Division Annual General Meeting, Kingston, Canada
37. **Bonney, M**., Treitz, P., Danby, R. (2017). Landscape Variability of Vegetation Change Across the Forest to Tundra Transition of Northern Canada. Canadian Association of Geographers - Ontario Division Annual General Meeting, Kingston, Canada
38. **Ewijk, van K**., Lindberg, E., Treitz, P., Woods, M. (2017). Species-specific Diameter Distribution Modeling using a Hybrid ABA-ITC Approach in a Complex Forest Ecosystem. Silvilaser 2017, Blacksburg, United States
39. **Freemantle, V.**, Treitz, P., **Atkinson, D.**, **Gregory, F.** (2017). Have Vegetation Types at the Cape Bounty Arctic Watershed Observatory Responded to a Warming Climate in the 21st Century? Canadian Association of Geographers - Ontario Division Annual General Meeting, Kingston, Canada
40. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P., Short, N., Brisco, B. (2017). Using DInSAR to Interpret Seasonal Surface Displacements in a Continuous Permafrost High Arctic Environment. Canadian Association of Geographers - Ontario Division Annual General Meeting, Kingston, Canada
41. **Kuzmich, R.**, Treitz, P. (2017). Identifying Cerulean Warbler Habitat from Forest Structure using Airborne Laser Scanning. Canadian Association of Geographers - Ontario Division Annual General Meeting, Kingston, Canada
42. **Shang, C.**, Treitz, P., Caspersen, J., Jones T.A. (2017). Tree Species Abundance Modelling with LiDAR and Multispectral Imagery using a Soft Classification Approach. Silvilaser 2017, Blacksburg, United States
43. Treitz, P., **Edwards, R.**, **Atkinson, D.**, Scott, N. (2017). Remote Sensing of Environmental Change in the Canadian High Arctic. Canadian Association of Geographers - Ontario Division Annual General Meeting, Kingston, Canada
44. **Ewijk, van K.**, Treitz, P., Casperson, J., Jones, T., Woods, M., Pitt, D. (2017). Prediction of Forest Inventory Attributes in Different Forest types in Ontario using a Core Set of ALS Metrics. Assessment of Wood Attributes from Remote Sensing (AWARE) Annual General Meeting, Edmunston, Canada
45. **Ewijk, van K.**, Treitz, P., Caspersen, J., Jones, T., Woods, M., Pitt, D. (2017). Prediction of FRI Attributes in Different Forest Types in Ontario using a Core Set of ALS Metrics. 38th Canadian Symposium on Remote Sensing at the Earth Observation Summit 2017, Montreal, Canada
46. **Rudy, A.C.A.**, Lamoureux, S.L., Treitz, P., Short, N., Brisco, B. (2017). Interpreting DInSAR Seasonal Surface Displacement in a Continuous Permafrost High Arctic Environment. 38th Canadian Symposium on Remote Sensing at the Earth Observation Summit 2017, Montreal, Canada
47. **Freemantle, V.**, Treitz, P., Atkinson, D., Humphreys, E., Gregory, F. (2017). Quantifying Environmental Change at a Canadian High Arctic Site using High Spatial Resolution Satellite Imagery. Queen's Northern Research Symposium, Kingston, Canada
48. **Bonney, M.**, Treitz, P., Danby, R., King, G. (2017). Landscape Variability of Vegetation Change across the Forest=Tundra Ecotone of Central Canada. American Association of Geographers Annual General Meeting, Boston, United States
49. **Bonney, M.**, King, G., Thibert, S., Danby, R., Treitz, P. (2017). C2T2: Central Canadian Treeline Transect, Canada's Arctic Biodiversity: The Next 150 Years. Canadian Museum of Nature, Ottawa, Canada
50. **Rudy, A.C.A.**, Lamoureux, S.L., Treitz, P., Short, N., Brisco, B. (2016). Seasonal and Multi-year Surface Displacements Measured by DInSAR in a High Arctic Permafrost Environment. ArcticNet Annual Scientific Meeting (ASM 2016), Winnipeg, Canada
51. **Shang, C.**, Jones, T., Treitz, P. (2016). Effect of Size and Number of Calibration Plots on the Estimation of Stem Diameter Distributions using Airborne Laser Scanning. International Geoscience and Remote Sensing Symposium (IGARSS), Beijing, China
52. **Edwards, R.**, Treitz, P. (2016). Landsat Observations of Vegetation Change in the Low and High Arctic: Apex River, Baffin Island and Cape Bounty, Melville Island, NU. Canadian Association of Geographers Annual General Meeting, Halifax, Canada
53. **Ewijk, van, K.**, Roussel, J.-R., Treitz, P., Caspersen, J., Achim, A., Jones, T., Woods, M., Pitt, D. (2016). Prediction of Forest Inventory Attributes in Different Forest Types in Ontario using a Core Set of ALS Metrics. 37th Canadian Symposium on Remote Sensing, Winnipeg, Canada

54. **Ewijk, van, K.**, Roussel, J.-R., Treitz, P., Casperson, J., Achim, A., Jones, T., Woods, M., Pitt, D. (2016). Prediction of Forest Inventory Attributes in Different Forest Types in Ontario using a Core Set of ALS Metrics. NSERC CRD AWARE Annual General Meeting, Corner Brook, Canada
55. **Edwards, R.**, Treitz, P. (2016). Remote Sensing of Vegetation Change: 30-year Landsat NDVI Trends, Apex River, Baffin Island and Cape Bounty, Melville Island, NU. Queen's University Northern Research Symposium, Kingston, Canada
56. Scott, N.A., **Blaser, A.**, **Buckley, E.**, Treitz, P. (2015). Variations in Factors Regulating Net Greenhouse Gas Exchange across Different Vegetation Types at Cape Bounty, Melville Island, Nunavut. American Geophysical Union, Fall Meeting, San Francisco, United States
57. **Edwards, R.**, Treitz, P. (2015). Remote Sensing of Vegetation Change: 30 Year Landsat NDVI Trends, Iqaluit, Baffin Island, NU. ArcticNet Annual Scientific Meeting (ASM 2015), Vancouver, Canada
58. **Liu, N.**, **Edwards, R.**, Treitz, P. (2015). Comparison of Two Methods for Measuring Percent Vegetation Cover. ArcticNet Annual Scientific Meeting, Vancouver, Canada
59. **Ewijk, van K.**, Treitz, P., Scott, N.A. (2015). LiDAR-based Characterization of Understory Trees in a Complex Temperate Forest in Ontario, Canada. Silvilaser 2015, La Grand Motte, France
60. **Blaser, A.**, Scott, N.A., Treitz, P. (2015). Seasonal Dynamics of Ecosystem Carbon Exchange for a Wet Sedge Vegetation Community, Melville Island, NU. Canadian Geophysical Union Student Conference, Waterloo, Canada
61. **Buckley, E.C.**, Scott, N.A., Treitz, P. (2015). Spatial and Temporal Patterns of Net Carbon Exchange for a Polar Semi-desert Vegetation Community on Melville Island, NU. Canadian Geophysical Union Student Conference, Waterloo, Canada
62. **Rudy, A.C.A.**, Holloway, J., Lamoureux, S.F., Treitz, P. (2015). Landscape Susceptibility Modeling to Understand the Drivers of Permafrost Disturbance and Change. Canadian Geophysical Union Student Conference, Waterloo, Canada
63. Holloway, J., **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2014). Modelling Landscape Susceptibility to Permafrost Disturbances Reveals Differential Patterns Related to Subsurface Water Pressurization. Arctic Change Annual Scientific Meeting 2014, Ottawa, Canada
64. **Blaser, A.**, Scott, N.A., Treitz, P. (2014). Seasonal Dynamics of Ecosystem Carbon Exchange for a Wet Sedge Vegetation Community, Melville Island, NU. Arctic Change Annual Scientific Meeting 2014, Ottawa, Canada
65. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P., **Ewijk, van K.** (2014). Universal Permafrost Disturbance Susceptibility Modelling for a Region in the Canadian High Arctic. Arctic Change Annual Scientific Meeting 2014, Ottawa, Canada
66. **Rudy, A.C.A.**, Holloway, J., Lamoureux, S.F., Treitz, P. (2014). Landscape Susceptibility Modeling to Understand the Drivers of Permafrost Disturbance and Change. American Geophysical Union Conference, San Francisco, United States
67. Scott, N.A., Wagner, I., **Gregory, F.**, Humphreys. E.C., Lafleur, P., Treitz, P. (2014). Scaling Net Greenhouse Gas Fluxes from Points to Landscapes in Mesic Tundra at the Cape Bounty Arctic Watershed Observatory (CBAWO), Melville Island, NU. Arctic Change Annual Scientific Meeting 2014, Ottawa, Canada
68. **Liu, N.**, Treitz, P. (2014). Modelling High Arctic Percent Vegetation Cover using Very High Spatial Resolution Vegetation Indices. Arctic Change Annual Scientific Meeting 2014, Ottawa, Canada
69. **Buckley, E.C.**, Scott, N.A., Treitz, P. (2014). Spatial and Temporal Patterns of Net Carbon Exchange for a Polar Semi-Desert Vegetation Community on Melville Island, NU. Arctic Change Annual Scientific Meeting 2014, Ottawa, Canada
70. **Buckley, E.C.**, Buckley, J.R., Scott, N.A., Treitz, P. (2014). Estimating Soil Moisture in Polar Semi-Desert Vegetation. International Geoscience and Remote Sensing Symposium (IGARSS 2014), Quebec City, Canada
71. Treitz, P., **Collingwood, A.**, Charbonneau, F. (2014). Modelling Biophysical Variables in the Canadian High Arctic using Synthetic Aperture Radar Data. International Geoscience and Remote Sensing Symposium, Quebec City, Canada
72. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P., **Ewijk, van K.**, Bonnaventure, P. (2014). Modelling Permafrost Disturbance Susceptibility across the Canadian High Arctic. 4th European Conference on Permafrost, Evora, Portugal

73. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2013). Permafrost Disturbance Susceptibility Mapping using Key Physiographic Controls and Geospatial Modelling int eh Canadian High Arctic. ArcticNet Annual Scientific Meeting (ASM 2013), Halifax, Canada
74. **Buckley, E.**, Scott, N., Treitz, P. (2013). Spatial and Temporal Patterns of Net Carbon Exchange in Polar Semi-Desert Communities at the Cape Bounty Arctic Watershed Observatory, Melville Island, Nunavut. ArcticNet Annual Scientific Meeting (ASM 2013), Halifax, NS, Canada
75. **Buckley, E.C.**, Scott, N.A., Treitz, P. (2013). Spatial and Temporal Patterns of Net Ecosystem Exchange of Carbon Dioxide on Melville Island, Nunavut. Canadian Geophysical Union Student Conference, Toronto, Canada
76. **Ewijk, van, K.**, Randin, D., Treitz, P., Scott, N. (2013). Predicting Fine-Scale Species Abundance Patterns using Biotic Variables Derived from LiDAR and High Spatial Resolution Imagery. Special Meeting of the International Biogeography Society: The Geography of Species Associations, Montreal, PQ, Canada
77. **Buckley, E.**, Scott, N., Treitz, P., Humphreys, E. (2013). Spatial and Temporal Patterns of Net Ecosystem Exchange of Carbon Dioxide and Ecosystem Respiration at the Cape Bounty Arctic Watershed Observatory, Melville Island, Nunavut, Canada. Queen's University Northern Research Symposium, Kingston, Canada
78. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2013). Permafrost Disturbance Susceptibility Mapping using Key Landscape Variables and Geospatial Modelling. Queen's University Northern Research Symposium, Kingston, Canada
79. **Collingwood, A.**, Treitz, P., Charbonneau, F. (2012). Biophysical Modelling and Monitoring in the Canadian High Arctic with Radarsat-2. ArcticNet Annual Scientific Meeting (ASM 2012), Vancouver, Canada
80. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2012). Satellite Change Detection Techniques and Object-Based Analysis to Identify Permafrost Slope Disturbances at Cape Bounty, Melville Island, Nunavut. ArcticNet Annual Scientific Meeting (ASM 2012), Vancouver, Canada
81. **Pope, G.**, Woods, M., Treitz, P. (2012). Integration of LiDAR and WorldView-2 Satellite Data for Leaf Area Index Estimation. 33rd Canadian Symposium on Remote Sensing, Ottawa, Canada
82. **Gregory, F.**, Treitz, P., Scott, N. (2012). Using IKONOS-derived NDVI to Study Vegetation Dynamics in the Canadian High Arctic. 33rd Canadian Symposium on Remote Sensing, Ottawa, ON, Canada
83. **Ewijk, van, K.**, Treitz, P., Scott, N. (2012). Exploring Species Distribution Models for Object-based Tree Species Mapping in Central Ontario. 33rd Canadian Symposium on Remote Sensing, Ottawa, Canada
84. **Collingwood, A.**, Treitz, P., Charbonneau, F. (2012). Environmental Monitoring in the Canadian High Arctic with RADARSAT-2. 33rd Canadian Symposium on Remote Sensing, Ottawa, Canada
85. **Allux, S.**, Treitz, P., Budkewitsch, P. (2012). Hyperspectral and Broad-Band Indices for Characterizing High Arctic Vegetation. 33rd Canadian Symposium on Remote Sensing, Ottawa, Canada
86. **Pope, G.**, Woods, M., Treitz, P. (2012). Integration of LiDAR and WorldView-2 Satellite Data for Leaf Area Index Estimation. GEOIDE Annual Scientific Conference, Quebec City, Canada
87. **Middleton, M.**, Närhi, P., Arkimaa, H., Hyvönen, E., Kuosmanen, V.K., Treitz, P., Sutinen, R. (2012). Hyperspectral Imaging of Boreal Peatland Biotopes along Soil Moisture and Fertility Gradients. 12th International Circumpolar Remote Sensing Symposium, Levi, Finland
88. **Cassidy, A.**, Bosquet, L., Lamoureux, S., Treitz, P., Henry, G. (2012). Tundra Vegetation and Physical Environmental Responses to Recent and Historical Permafrost Disturbance. International Polar Year 2012 From Knowledge to Action Conference, Montreal, PQ, Canada
89. **Gregory, F.**, Treitz, P., Scott, N. (2012). Scaling up CO2 Flux Measurements using IKONOS-2 Data. International Polar Year (IPY) 2012 From Knowledge to Action Conference, Montreal, PQ, Canada
90. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2012). Mapping High Arctic Permafrost Disturbances using Multi-temporal Aerial Photographs and Satellite Imagery, Melville Island, Nunavut. International Polar Year (IPY) 2012 From Knowledge to Action Conference, Montreal, PQ, Canada
91. **Allux, S.**, Budkewitsch, P., Treitz, P. (2012). High-Resolution Satellite Mapping of High Arctic Vegetation Composition and Cover on the Sabine Peninsula, Melville Island, Nunavut. International Polar Year (IPY) 2012 From Knowledge to Action Conference, Montreal, PQ, Canada
92. **Collingwood, A.**, Treitz, P., Charbonneau, F. (2012). Soil Moisture Modelling in the Canadian High Arctic with Radarsat-2. International Polar Year (IPY) 2012 From Knowledge to Action, Montreal, PQ, Canada
93. Lamoureux, S., Lafreniere, M., Treitz, P., Scott, N. (2012). The Cape Bounty Arctic Watershed Observatory (CBAWO): Integrated Arctic System Science in the Canadian High Arctic. Queen's University Arctic Day, Kingston, Canada

94. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2012). Integrating Field Data and Remote Sensing to Detect Important Geomorphological Disturbances Associated with Permafrost Degradation, A Canadian Arctic Example. Advances in Earth Science Research Conference, Kingston, Canada
95. **Rudy, A.C.A.**, Lamoureux, S.F., Treitz, P. (2012). Identification of Permafrost Slope Disturbances using Multi-temporal Imagery and Change Detection Techniques, Cape Bounty, Melville Island, Nunavut. 42nd International Arctic Workshop, Winter Park, FL, United States
96. **Lim, K.**, Woods, M., Treitz, P. (2011). Enhancing Forest Inventories using LiDAR: Experience from Ontario, Canada. Society of American Foresters 2011 National Convention, Honolulu, HI, United States
97. Ewijk, K., van, Treitz, P., Scott, N. (2011). Contrasting Conifer Plantations and Natural Forest Stands in Central Ontario using Spectral, LiDAR and Textural Information. 32nd Canadian Symposium on Remote Sensing: Monitoring a Changing World, Sherbrooke, PQ, Canada
98. Treitz, P., Woods, M., Pitt, D., Penner, P., **Lim, K.**, Nesbitt, D., Etheridge, D. (2011). Operational Implementation of a LiDAR Inventory in Boreal Ontario. 32nd Canadian Symposium on Remote Sensing: Monitoring a Changing World, Sherbrooke, PQ, Canada
99. **Atkinson, D.M.**, Treitz, P. (2011). Estimation of Arctic Tundra Biophysical Variables from IKONOS Multispectral Data. Canadian Association of Geographers Annual General Meeting, Calgary, Canada
100. **Collingwood, A.**, Treitz, P., Charbonneau, F. (2011). Environmental Monitoring in the Canadian High Arctic with Radarsat-2. 32nd Canadian Symposium on Remote Sensing: Monitoring a Changing World, Sherbrooke, PQ, Canada
101. Wagner, I., Beamish, A., **Cassidy, A.**, Treitz, P., Scott, N. (2011). Relationships among Phenology, NDVI and CO2 Exchange in three High-Arctic Plant Communities. 32nd Canadian Symposium on Remote Sensing: Monitoring a Changing World, Sherbrooke, PQ, Canada
102. **Pope, G.**, Woods, M., Nesbitt, D., Treitz, P. (2011). Comparing LiDAR and Stereophoto Digital Elevation Models in a Managed Boreal Forest Environment. GEOIDE Annual General Meeting, Toronto, ON, Canada
103. **Pope, G.**, Treitz, P., Dech, J., Woods, M., Nesbitt, D., Etheridge, D., Pitt, D., Lim, K. (2011). Precision Planning Inventory Tools for Forest Value Enhancement. GEOIDE Annual General Meeting, Toronto, ON, Canada
104. **Cassidy, A.**, Lamoureux, S., Treitz, P. (2011). Tundra Vegetation site Characteristics Associated with 20th Century Permafrost Disturbances. 41st Annual Arctic Workshop, Montreal, PQ, Canada
105. **Ewijk, K., van**, Treitz, P., Scott, N. (2011). LiDAR Derived Indices for Characterizing Forest Succession and Ecosite Prediction in Central Ontario. FRP/CIF Workshop: Taking Stock - Inventory Options for Today and Tomorrow, Kapuskasing, ON, Canada
106. **Thomas, V.**, Khomik, M., McCaughey, J.H., Arain, A., Treitz, P. (2010). Leaf and Canopy Physiology: Synergistic Use of Field Measurements, Radiative Transfer Modeling and LiDAR-Hyperspectral Remote Sensing. The Prairie Summit (CAG, CCA, CGRG and CRSS), Regina, SK, Canada
107. **Collingwood, A.**, Treitz, P., Charbonneau, F. (2010). Surface roughness modeling with SAR data in a High Arctic Environment. 7th ArcticNet Annual Scientific Meeting (ASM2010), Ottawa, ON, Canada
108. **Cassidy, A.**, Lamoureux, S., Treitz, P. (2010). The Effects of Historic Permafrost Disturbance on Tundra Vegetation, Cape Bounty, Melville Island, Nunavut. 7th ArcticNet Annual Scientific Meeting (ASM2010), Ottawa, ON, Canada
109. Wagner, I., Beamish, A., **Cassidy, A.**, Treitz, P., Scott, N. (2010). Relationships among Phenology, NDVI and CO2 Exchange in the Three High Arctic Plant Community Types. 7th Arctic Annual Scientific Meeting (ASM2010), Ottawa, ON, Canada
110. **Pilger, N.**, Treitz, P., St-Onge, B. (2010). Coupling LiDAR and High-Resolution Digital Imagery for Biomass Estimation in Mixedwood Forest Environments. Canadian Association of Geographers - Ontario Division (CAGONT) Annual Meeting, Toronto, ON, Canada
111. Treitz, P., **Lim, K.**, Woods, M., Nesbitt, D., Etheridge, D. (2010). LiDAR Data Acquisition and Processing Protocols for Forest Resource Inventories in Ontario, Canada. Proceedings of the Silvilaser Conference 2010. In Proceedings of the 10th International Conference on LiDAR Applications for Assessing Forest Ecosystems, pp. 450-459, Freiburg, Germany
112. Treitz, P., **Lim, K.**, Woods, M., Pitt, D., Nesbitt, D., Etheridge, D. (2010). LiDAR Data Acquisition and Processing Protocols for Forest Resource Inventories in Ontario, Canada. Silvilaser 2010, Freiburg, Germany
113. **Ewijk, K., van**, Treitz, P., Scott, N. (2010). Characterizing Forest succession in Central Ontario using LiDAR Derived Indices. The Prairie Summit (CAG, CCA, CGRG and CRSS), Regina, Canada

114. Treitz, P., **Lim, K**., Woods, M., Nesbit, D., Etheridge, D. (2010). LiDAR Remote Sensing for Forest Management: Modelling Forest Inventory Variables. The Prairie Summit (CAG, CCA, CGRG and CRSS), Regina, SK, Canada
115. **Ewijk, K., van**, Treitz, P., Scott, N. (2010). Characterizing Forest Succession in Central Ontario using LiDAR Derived Indices. OCE Discovery 2010, Toronto, ON, Canada
116. **McQuat, G.**, Harrap, R.M., Treitz, P. (2010). Methodologies for Effective Analysis of Mobile-Terrestrial LiDAR Data in Complex Urban Environments. OCE Discovery 2010, Toronto, ON, Canada
117. **Southee, M.**, Treitz, P., Scott, N. (2010). Using LiDAR Derived Terrain Attributes for Forest Ecosite Prediction in the Romeo-Malette Forest, Ontario. OCE Discovery 2010, Toronto, ON, Canada
118. Woods, M., **Lim, K.**, Treitz, P., Etheridge, D. (2010). Investigating Airborne LiDAR Acquisition Intensity Requirements in the Enhancement of Forest Resource Inventories. GEOTEC 2010 – Increasing Productivity, Potential and Profits, Toronto, ON, Canada
119. **Lim, K.**, Treitz, P., Woods, M., Etheridge, D., Nesbitt, D. (2010). Operationalizing the Use of LiDAR in Forest Resource Inventories: What is the Optimal Point Density? ASPRS 2010 Annual Conference, Opportunities for Emerging Geospatial Technologies, San Diego, CA, United States
120. Pollard, A., Treitz, P., Duncan, A., Matovic, D., Scott, N., Carson, S. (2010). Optimizing Ontario-based Wood Pellet Production for Co-firing and Market Development and Penetration. Final Project Presentation for the Ontario Centre of Excellence - Atikokan Bioenergy Research Centre, Atikokan, ON, Canada
121. **McQuat, G.**, Harrap, R.M., Treitz, P. (2010). Object-Oriented Classification of Mobile-Terrestrial LiDAR Data. International LiDAR Mapping Forum, Denver, CO, United States
122. **Ewijk, K., van**, Treitz, P., Scott, N. (2010). Characterizing Forest Succession in Central Ontario using LiDAR Derived Indices. Multi-Cohort, Stand Structural Classification using LiDAR, Faculty of Forestry, University of Toronto, Toronto, ON, Canada
123. Wagner, I., Scott, N., **Gregory, F**., Humphreys, E., Lafleur, P., Lafreniere, M., Lamoureux, S. (2009). Quantifying the Watershed-Scale Carbon Balance of High Arctic Ecosystems at Cape Bounty, Melville Island, Nunavut. ArcticNet Annual Scientific Meeting, Victoria, BC, Canada
124. **Gregory, F.M.**, Treitz, P., Scott, N. (2009). Carbon Dioxide Flux and NDVI by Vegetation Community in the Canadian High Arctic. AGU Fall Meeting, San Francisco, CA, United States
125. **Gregory, F.M.**, Treitz, P., Scot, N. (2009). Source or Sink? Monitoring Growing Season Carbon Exchange and NDVI at Cape Bounty, Nunavut. ArcticNet Annual Scientific Meeting, Victoria, BC, Canada
126. **Ewijk, K., van**, Treitz, P., Scott, N. (2009). Characterizing Forest Structure using a LiDAR Derived Complexity Index. In Proceedings of the Silvilaser Conference 2009. The 9th International Conference on LiDAR Applications for Assessing Forest Ecosystems, pp. 249-258, College Station, Texas, United States
127. **Ewijk, K., van**, Treitz, P., Scott, N. (2009). Characterizing Vertical Forest Structure using LiDAR Derived Complexity Indices. Ontario Centres of Excellence (OCE) Discovery 2009, Toronto, Canada
128. **Kim, S.**, Treitz, P., Scott, N. (2009). Characterizing Forest Biomass and Productivity for Bioenergy in Northwestern Ontario. Ontario Centres of Excellence (OCE) Discovery 2009, Toronto, Canada
129. **Thomas, V**., Noland, T., McCaughey, J.H., Treitz, P. (2009). LiDAR-Hyperspectral Analysis to Examine Leaf Area Index, Clumping, and Canopy Biochemistry in a Boreal Mixedwood Environment. ASPRS 2009 Annual Conference, Baltimore, Maryland, United States
130. **Kim, S.**, Treitz, P., Scott, N. (2009). Quantifying Forest Biomass and Productivity for Bioenergy in Northwestern Ontario. Annual Meeting f the Canadian Carbon Program, Vancouver, BC, Canada
131. Hincke, A.J.C., **Atkinson, D.M.**, Treitz, P., Scott, N.A. (2008). The Influence of Vegetation Communities on Soil Caron and Nitrogen Storage in Mid- and High-Arctic Ecosystems. International Arctic Change 2008 Conference, Quebec City, Quebec, Canada
132. **Atkinson, D.M.**, Treitz, P. (2008). Estimating CO2 Flux Measurements from the Integration of High Spatial Resolution Remotely Sensed Data and Biophysical Variables. International Arctic Change, Quebec City, Quebec, Canada
133. **Thomas, V**., McCaughey, J.H., Treitz, P., Noland, T. (2008). Integration of LiDAR and Hyperspectral Remote Sensing to Examine the Influence of Tree Species Arrangements on Site Estimates of Biophysical Variables, LAI, fPAR, and GPP. EOS Transaction, American Geophysical Union Fall Meeting, San Francisco, CA, United States. EOS Transactions 89(53) Abstract B32A-05
134. **Gregory, F.M.**, Scott, N.A., Treitz, P., **Atkinson, D.** (2008). Seasonal Variation in Net Carbon Exchange in Three High Arctic Vegetation Communities. International Arctic Change, Quebec City, Quebec, Canada

135. Lamoureux, S., Cockburn, J., Stewart, K., McDonald, D., Treitz, P., **Atkinson, D., Wall, J**., Lafreniere, M., McLeod, B., Francus, P., Cuven, S., Simpson, M., Otto, A., Austin, J. (2008). High Arctic Integrated Landscape and Ecological Processes, Cape Bounty, Melville Island, Nunavut. International Arctic Change, Quebec City, Quebec, Canada
136. **Pilger, N.**, Treitz, P., St-Onge, B., Woods, M. (2008). Optimal Lidar Point Density for Calculating Leaf Area Index for Mixed-wood Great Lakes - St. Lawrence Forests. Canadian Association of Geographers Annual General Meeting, Quebec City, Quebec, Canada
137. **Fedrigo, M.**, Treitz, P., Barber, G. (2008). Comparison of Digital Elevation Data derived from Topographic Maps and Airborne LiDAR Acquisition under varying Forest Canopy Densities. Canadian Association of Geographers Annual General Meeting, Quebec City, Quebec, Canada
138. **Ewijk, K. van**, Treitz, P., Scott, N., Woods, M. (2008). The Characterization of Vertical Forest Structure using LiDAR Derived Complexity Indices to Enhance Forest Vegetation Classification in Central Ontario. Canadian Association of Geographers Annual General Meeting, Quebec City, Quebec, Canada
139. **Lim, K.**, Woods, M., Treitz, P., Courville, P. (2008). Enhanced Forest Resource Inventories: Going Operational with LiDAR. International LiDAR Mapping Forum, Denver, United States
140. **Chasmer, L.**, McCaughey, J.H., Treitz, P., Barr, A., Black, A., Hopkinson, C., Shashkov, A. (2007). Modelling fPAR and GPP from Airborne LiDAR for Local Scaling and Assessment of MODIS Vegetation Products. American Geophysical Union Fall Conference, San Francisco, United States
141. **Chasmer, L.**, McCaughey, J.H., Treitz, P., Barr, A., Black, A., Shashkov, A. (2007). Structural and Age-Related Influences on LUE for MODIS GPP Product Validation. CRSS/ASPRS Conference, Ottawa, Canada
142. Pilger, N., Treitz, P., St-Onge, B., Woods, M., Courville, P. (2007). LiDAR Point Density Analysis for Forest Parameter Extraction. Canadian Association of Geographers - Ontario Division (CAGONT) Annual General Meeting, Sudbury, Canada
143. **Atkinson, D.M**., Treitz, P. (2007). Ecological Classification Derived from Spectral and Vegetation Data for Cape Bounty, Melville Island. IPY GeoNorth - International Circumpolar Conference on Geospatial Sciences and Applications, Yellowknife, Northwest Territory, Canada
144. **Pilger, N.**, Treitz, P., St-Onge, B. (2007). LiDAR, Biomass and Leaf Area Index. Workshop on Enhancing Resource Inventories: Tools for Today and Tomorrow, Forestry Research Partnership, Canadian Ecology Centre, Mattawa, Ontario, Canada
145. **Chasmer, L.**, Barr, A., Black, A., **Hopkinson, C.**, Kljun, N., McCaughey, J.H., Treitz, P. (2007). Vegetation Structural and Topographic Influences on CO2 Uptake within a Mature Jack Pine Forest in Saskatchewan. CGU-CMOS Joint Conference, St. John's Newfoundland, Canada
146. **Chasmer, L.**, Barr, A., Black, A., **Hopkinson, C.**, McCaughey, J.H., **Treitz, P**., Shashkov, A., Zha, T. (2007). Using Airborne LiDAR for the Assessment of MODIS Spectral Vegetation Indices across a Boreal Jack Pine Chronosequence and at the Watershed Scale (White Gull Creek). Fluxnet Canada Annual General Meeting, Toronto, Ontario, Canada
147. **Chasmer, L.**, McCaughey, J.H., Barr, A., Black, A., Shahkor, A., Treitz, P. (2006). Influences of Dry and Wet Years on Magnitude of Energy, Water, and Carbon Exchanges in a Jack Pine Chronosequence at BERMS. Fluxnet-Canada 2006 Annual General Meeting, Victoria, Canada
148. McQueen, S., Mahoney, K., McCaughey, J.H., Arain, M.A., Cameron, A., Dexter, R., Finch, D.A., MacLean, L., Pejam, M., **Thomas, V.**, Treitz, P. (2006). 2004-2005 Carbon and Energy Exchange in the Ontario Mixedwood Forest. Fluxnet-Canada 2006 Annual General Meeting, Victoria, Canada
149. **Thomas, V.**, Treitz, P., McCaughey, J.H., Finch, D., Noland, T., Rich, L., Morrison, I. (2006). Integration of LiDAR and hyperspectral data with micrometeorological measurements to develop spatially explicit models of canopy chlorophyll, fPAR and photosynthesis. Proceedings of Silvilaser 2006. 224-230, Silvilaser 2006, Matsuyama, Japan
150. **Chasmer, L.**, Barr, A., Black, A., **Hopkinson, C**., Kljun, N., McCaughey, H., Treitz, P. (2006). Using Flux Footprints, 3D Airborne LiDAR, and Meteorological Flux Measurements to Assess the Variability in Water and Carbon Fluxes at Old Jack Pine. Hydro-Scan Workshop, Saskatoon, Canada
151. **Thomas, V.**, McCaughey, J.H., Treitz, P., Finch, D.A., Noland, T. (2006). Spatial Variability at the Groundhog River Flux Site. Fluxnet-Canada 2006 Annual General Meeting, Victoria, Canada
152. **Chasmer, L.**, Barr, A., Black, A., **Hopkinson, C.**, Kljun, N., McCaughey, J.H., Treitz, P. (2006). Variability in CO2 Fluxes with Changes in Vegetation Structure and Topography using a Temporally Changing Flux Footprint at BERMS Old Jack Pine. American Geophysical Union Conference, San Francisco, United States

153. **Thomas, V.**, Treitz, P., McCaughey, J.H., Noland, T., Rich, L., Morrison, I. (2006). Estimating forest canopy chlorophyll concentration using complementary remote sensing technologies: LiDAR and hyperspectral data. Proceedings of Silvilaser 2006. Pp. 145-151, Silvilaser 2006, Matsuyama, Japan
154. **Chasmer, L.**, Barr, A., Black, A., **Hopkinson, C.**, McCaughey, J.H., Treitz, P., Shashkov, A., Zha, T. (2006). LiDAR derived canopy structural influences on light use efficiency at a chronosequence of Fluxnet-Canada jack pine forest sites for MODIS product validation. Proceedings of the International Geoscience and Remote Sensing Symposium. International Geoscience and Remote Sensing Symposium, Denver, United States
155. **Chasmer, L.**, Barr, A., Black, A., **Hopkinson, C.**, McCaughey, J.H., Treitz, P., Shahkor, A. (2006). Do Dry and Wet Years alter Structural Characteristics as Observed Locally and by Remote Sensing? Results for a Jack Pine Chronosequence at BERMS. Fluxnet-Canada 2006 Annual General Meeting, Victoria, Canada
156. **Chasmer, L.**, **Hopkinson, C.**, Treitz, P., Sitar, M. (2005). Examining the Influence of Laser Pulse Energy Transmission and Repetition Frequency on Conifer Forest Canopy Returns. Silviscan: LiDAR Application in forest Assessment and Inventory, Blacksburg Virginia, United States
157. **Wall, J.**, Treitz, P. (2005). Spatial and Temporal Analysis of Soil Moisture Conditions for an Arctic Watershed using Synthetic Aperture Radar (SAR). Canadian Association of Geographers Annual General Meeting, London, Canada
158. Treitz, P., **Chasmer, L.**, **Hopkinson, C.**, Lim, K., Thomas, V. (2005). Remote Sensing of Forest Structure using Light Detection and Ranging (LiDAR). Canadian Association of Geographers Annual General Meeting, London, Canada
159. **Atkinson, D.M.**, Treitz, P. (2005). Remote Sensing for the Quantification of Arctic Biomass on Melville Island, NU. Canadian Association of Geographers Annual General Meeting, London, Canada
160. **Thomas, V.**, Finch, D., McCaughey, J.H., Treitz, P. (2005). Modelling Below-Canopy PAR for a Mixedwood Boreal Forest Environment. Canadian Association of Geographers Annual General Meeting, London, Canada
161. McCaughey, J.H., Arain, M.A., Cameron, A., Khomik, M., MacLean, L., Pejam, M., **Thomas, V.**, Treitz, P. (2005). Carbon, Water and Energy Exchange in the Ontario Mixedwood Forest Region. BIOCAP Canada Foundation First National Conference "Capturing Canada's Green Advantage: Biosphere Solutions for Climate Change, Ottawa, Canada
162. McCaughey, J.H., Arain, M.A., Cameron, A., **Chasmer, L.**, Finch, D., Khomik, M., MacLean, L., Morrison, I.K., Pejam, M., **Thomas, V.**, Treitz, P. (2005). Progress Report of the Groundhog River Flux Station (Ontario). Fluxnet-Canada Research Network 2005 Annual General Meeting, Quebec City, Quebec, Canada
163. St-Onge, B., Gillis, M., Kurz, W., Treitz, P., Wulder, M. (2005). Estimating Forest Carbon Stocks through Space and Time using 3D Remote Sensing. BIOCAP Canada Foundation First National Conference "Capturing Canada's Green Advantage: Biosphere Solutions for Climate Change, Ottawa, Canada
164. **Thomas, V.**, McCaughey, J.H., Treitz, P. (2005). Modelling of Photosynthesis at the Groundhog River Flux Station: Preliminary Results. Fluxnet-Canada Research Network 2005 Annual General Meeting, Quebec City, Quebec, Canada
165. **Lim, K.**, Treitz, P. (2004). Estimation of Aboveground Forest Biomass using Airborne Scanning Discrete Return LiDAR in Douglas Fir. NATSCAN - Laser Scanners for Forest and Landscape Assessment - Instruments, Processing Methods and Applications, Freiburg, Germany
166. **Atkinson, D.**, Treitz, P. (2004). High Spatial Resolution Remote Sensing for the Quantification of Arctic Biomass. Canadian Association of Geographers - Ontario Division, Waterloo, Ontario, Canada
167. **Hopkinson, C.**, **Chasmer, L.**, Zsigovics, G., Creed, I., Sitar, M., Treitz, P., Maher, R. (2004). Errors in LiDAR Ground Elevation and Wetland Vegetation Height Estimates. NATSCAN - Laser Scanners for Forest and Landscape Assessment - Instruments, Processing Methods and Applications, Freiburg, Germany (6 pages)
168. **Hopkinson, C.**, **Lim, K.**, **Chasmer, L**., Treitz, P., Creed, I., Gynan, C. (2004). Wetland Grass to Plantation Forest - Estimating Vegetation Height from the Standard Deviation of LiDAR Frequency Distributions. NATSCAN - Laser Scanners for Forest and Landscape Assessment - Instruments, Processing Methods and Applications, Freiburg, Germany
169. **Chasmer, L.**, **Hopkinson, C.**, Treitz, P. (2004). Assessing the Three-Dimensional Frequency Distribution f Airborne and Ground-based LiDAR Data for Red Pine and Mixed Deciduous Forest Plots. NATSCAN - Laser Scanners for Forest and Landscape Assessment - Instruments, Processing Methods and Applications, Freiburg, Germany
170. Budkewitsch, P., Molch, K., McGregor, R., **Maher, A.**, Treitz, P., Ferguson, M.A.D. (2004). Temporal Snow Cover Variation and Terrain Characteristics of Peary Caribou Habitats in the Canadian Arctic using Optical

and InSAR Data. 2004 IEEE International Geoscience and Remote Sensing Symposium, Anchorage, Alaska, United States

171. **Hessing-Lewis, M.**, Durance, C., Levings, C., Tobe, E., Arnott, S., Treitz, P. (2004). Assessing Eelgrass (Zostera marina) Restoration in the Squamish River Estuary, British Columbia. International Society for Ecological Restoration (SER) 2004, Victoria, Canada
172. St-Onge, B., Treitz, P., Wulder, M., Kurz, W., Gillis, M. (2004). Retrospective Mapping of Structural and Biomass Changes in Forest Ecosystems using Photogrammetry and Laser Altimetry. American Geophysical Union / Canadian Geophysical Union, Montreal, Quebec, Canada
173. **Chasmer, L.**, McCaughey, J.H., Treitz, P. (2004). An Examination of Climatic Differences and Associated Driving Mechanisms of Above-Ground Vegetation Productivity Observed using Remote Sensing across the Fluxnet-Canada Network. Fluxnet-Canada Research Network (FCRN) Annual General Meeting, Banff, Alberta, Canada
174. **Thomas, V**., McCaughey, J.H., Treitz, P. (2004). Preliminary Work Toward the Estimation of Canopy Carbon Uptake: Large Tree Characterization of the Groundhog River Flux Station, Ontario, Fluxnet-Canada Research Network (FCRN) Annual General Meeting, Banff, Canada
175. **Lim, K.**, Treitz, P. (2003). Airborne Lidar for Forestry. Forest Inventory Workshop, Forest Research Partnership, Canadian Ecology Centre, Mattawa, Ontario, Canada
176. **Hopkinson, C.**, **Chasmer, L.**, Young-Pow, P. Treitz, P. (2003). Assessing Plot-level Forest Metrics with a Ground-based Scanning LiDAR. Forest Inventory Workshop, Forest Research Partnership, Canadian Ecology Centre, Mattawa, Ontario, Canada
177. **Lim, K.**, Treitz, P., **Hopkinson, C.** (2003). A Theory on the Relationship between the Vertical Distribution of Laser Canopy Returns and Foliage / Needle Area: Research to Date. Canadian Association of Geographers - Ontario Chapter, Kingston, Ontario, Canada
178. **Maher, A.**, Treitz, P., Budkewitsch, P., Ferguson, M.A.D. (2003). Measuring Snow-Cover Conditions using IKONOS and Landsat-ETM+ Data for Winter Foraging Habitats of Peary Caribou and Muskoxen on the Queen Elizabeth Islands, Nunavut, Canada. 7th Association of Canadian Universities for Northern Studies (ACUNS) Student Conference on Northern Studies, Edmonton, Alberta, Canada
179. Serele, C., Shen-En, Q., Bergeron, M., Treitz, P., Hollinger, A., Cavayas, F. (2003). A Comparative Analysis of Two Compression Algorithms for retaining the Spatial Information in Hyperspectral Data. Canadian Symposium on Remote Sensing, Montreal, Quebec, Canada (135-144)
180. **Chasmer, L.**, **Hopkinson, C.**, Treitz, P. (2003). Laser Pulse Return Frequency Distribution within Tree Canopies using Airborne and Ground-based LiDAR Systems. Canadian Association of Geographers Ontario Chapter, Kingston, Ontario, Canada
181. **Lim. K.**, Treitz, P. (2003). Estimation of Above-Ground Biomass from Airborne Laser Scanner Data with Canopy-based Quantile Estimators. Scandlaser Scientific Workshop on Airborne Laser Scanning of Forests, Working Paper 112, 2003 Swedish University of Agricultural Sciences, Department of Forest Resource Management and Geomatics, Umea, Sweden (165-173)
182. **Taylor, A.D.**, Ferguson, M.A.D., Treitz, P. (2003). Inuit Qaujimajatuqangit of Winter Habitat Use and Population Changes of Peary Caribou and Muskoxen on High Arctic Island in Nunavut, Canada. 11th Arctic Ungulate Conference (AUC), Tunturihotelli, Saariselk, Finland
183. **Maher, A.**, Treitz, P., Budkewitsch, P., Ferguson, M.A.D. (2003). Remote Sensing of Winter Foraging Habitats of Peary Caribou and Muskoxen on the Queen Elizabeth Islands, Nunavut, Canada. 11th Arctic Ungulate Conference (AUC), Tunturihotelli, Saariselk, Finland
184. **Lim, K.**, Treitz, P. (2003). Estimation of Aboveground Biomass from Airborne Laser Scanner Data with Canopy-based Quantile Estimators. Annual Meeting of the Canadian Association of Geographers, Victoria, British Columbia, Canada
185. **Lim, K.**, Treitz, P. (2003). LiDAR Remote Sensing for Forestry. GEOIDE Annual Scientific Meeting, Victoria, British Columbia, Canada
186. **Lim, K.**, Treitz, P., Morrison, I., Baldwin, K. (2002). Estimating Above-Ground Biomass using LiDAR Remote Sensing. SPIE Symposium on Remote Sensing, Agia Pelagia, Crete, Greece
187. **Lim, K.**, Csillag, F., Todd, K., Treitz, P. (2002). Bootstrap cross-validation of fine spatial resolution elevation data derived from small footprint time-of-flight LiDAR. International Geoscience and Remote Sensing Symposium, Toronto, Ontario, Canada

188. Noland, T., **Sampson, P.**, Zarco-Tejada, P., Mohammed, G., Miller, J., Treitz, P. (2002). Estimates of Chlorophyll Content using Remote Sensing to Monitor Forest Conditions. 1st Annual Sustainable Forest Management Summit: Science in Policy and Practice, Sharing Successful Regional and Local Initiative, Green Bay, Wisconsin, United States
189. **Thomas, V.**, Treitz, P. (2001). Hyperspectral Analysis of Acer saccharum Stand Structure. 23rd Canadian Symposium on Remote Sensing, Saint-Foy, Quebec, Canada
190. **Lim, K.**, Treitz, P., Groot, A., St-Onge, B. (2001). Estimation of Individual Tree Heights using Lidar Remote Sensing. Proceedings. 23rd Canadian Symposium on Remote Sensing, Sainte-Foy, Quebec, Canada (243250)
191. **Thomas, V.**, Treitz, P. (2001). Hyperspectral Assessment of Sugar Maple Stand Structure. Third North American Forest Ecology Workshop, Measuring and Monitoring Forest Ecosystem Health Session, Duluth, Minnesota, United States
192. **Lim, K.**, Treitz, P., St-Onge, B., Wulder, M. (2001). Three-Dimensional Analysis of a Northern Tolerant Hardwood Forest in the Algoma Region of Central Ontario, Canada. Digital Earth 2001, Fredericton, New Brunswick, Canada
193. **Laidler, G.**, Treitz, P. (2001). A Preliminary Investigation into the Utility of Spectral Vegetation Indices for the Estimation of Arctic Tundra Biomass. Canadian Association of Geographers 2001 Annual Conference, Montreal, Quebec, Canada
194. **Sheriff, C.**, Treitz, P., Lamoureux, S. (2001). Soil Moisture Modelling of Arctic Tundra Soils using Synthetic Aperture Radar. Canadian Association of Geographers 2001 Annual Conference, Montreal, Quebec, Canada
195. **Sampson, P.H.**, Zarco-Tejada, P.J., Mohammed, G.H., Miller, J.R., Noland, T.L., Treitz, P. (2001). From Leaf to Canopy: Estimation of Chlorophyll Content using Remote Sensing to Monitor Forest Conditions. Third North American Forest Ecology Workshop, Measuring and Monitoring Forest Ecosystem Health Session, Duluth, United States
196. **Sampson, P.H.**, Treitz, P., Miller, J.R., Mohammed, G. (2000). Remote Sensing of Forest Condition: An Examination of Scale, Structure and Function. 22nd Canadian Symposium on Remote Sensing, Victoria, Canada
197. **Prenzel, B.**, Treitz, P. (2000). Land Cover Classification of a Topographically Complex Tropical Watershed using SPOT Data. Canadian Association of Geographers 2000 Annual Conference, St. Catharines, Canada
198. **Thomas, V.**, Treitz, P., Jelinski, D. (2000). Use of Species Abundance Data for Classification of High Spatial Resolution CASI Imagery for a Northern Manitoba Fen. Canadian Association of Geographers 2000 Annual Conference, St. Catharines, Canada
199. Wulder, M., St-Onge, B., Treitz, P. (2000). Three-Dimensional Analysis of Forest Structure and Terrain using LiDAR Technology. GEOIDE Calgary 2000, Calgary, Canada
200. **Prenzel, B.**, Treitz, P., Kellman, M., Spence, E., LeDrew, E. (2000). Land Cover Change Analysis for a Topographically Complex Tropical Watershed using SPOT Data. 22nd Canadian Symposium on Remote Sensing, Victoria, Canada
201. Noland, T., Zarco-Tejada, P., Miller, J., Mohammad, G., **Sampson, P.**, Colombo, S., Irving, D., Treitz, P., Freemantle, J. (2000). Bioindicators of Sustainable Forestry: Scaling up Physiological Indicators using Remote Sensing. Forest Sustainability Beyond 2000 Conference, Thunder Bay, Canada
202. Treitz, P., **Sampson, P.**, **Thomas, V.** (2000). Remote Sensing of Forest Structure and Function. Canadian Association of Geographers 2000 Annual Conference, St. Catharines, Canada
203. **Thomas, V.**, Treitz, P., Jelinski, D., Miller, J., Lafleur, P., McCaughey, H. (2000). Classification of Ecological and CASI Reflectance Data for a Fen Community in Northern Manitoba. 22nd Canadian Symposium on Remote Sensing, Victoria, Canada
204. Treitz, P., Miller, J., Mohammed, G., Noland, T., Colombo, S., Zarco-Tejada, P.J., **Sampson, P.**, Shepherd, P. (1999). Optical Indices for Estimating Biophysical/Physiological Parameters. Canadian Association of Geographers Annual Conference, Kingston, Canada
205. **McNally, B.**, Treitz, P. (1998). Effects of incidence Angle on Radarsat SAR Backscatter and Texture Statistics for an Agricultural Environment, Canadian Association of Geographers 199 Annual Conference, University of Ottawa, Ottawa, Ontario, Canada
206. Treitz, P., Howarth, P.J., Rotunno, Filo, O., Soulis, E.D. (1997). Information Processing of Multipolarization Airborne SAR Data for Early Season Crop Discrimination. Proceedings of the Geomatics in the Era of

RADARSAT Symposium (GER'97), 9th International Geomatics Conference / 19th Canadian Remote Sensing Symposium, Ottawa, Canada May 24-30, Canadian Geomatics CD-ROM, Paper No 218, 12 pp.

207. **McNally, B.**, Treitz, P. (1997). An Examination of the Relationship between Radar Backscatter and incidence Angle for an Agricultural Environment using Radarsat SAR Data: Preliminary Results, Canadian Association of Geographers – Ontario Chapter / American Association of Geographers – Middle States Division, Buffalo State, Buffalo, USA
208. Treitz, P., Howarth, P.J. (1997). Canadian Association of Geographers, 1997 Annual Conference, Memorial University, St. Johns, Newfoundland, August 23-30, pp. 215-216.
209. Treitz, P., Rotunno, Filo, O., Soulis, E.D., Howarth, P.J. (1996). Textural Processing of Multi-Polarization SAR for Agricultural Crop Classification, In Proceedings, Information Tools for Sustainable Development, International Geoscience and Remote Sensing Symposium (IGARSS'96), Lincoln, Nebraska, May 27-31, Vol. IV, Institute of Electrical and Electronics Engineers, Inc., Picataway, New Jersey, pp. 1986-1988.
210. Treitz, P., Howarth, P.J. (1996). Geostatistical Analysis of Multi-Spatial Resolution Imaging Spectrometer Data for Characterizing Forest Ecosystems, In Proceedings, Second International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, May 21-23, General Technical report RM-GTR-277, Fort Collins, Colorado, US Department of Agriculture, Forest Service, Rocky Mountain Forest Range and Experiment Station, pp. 91-98.
211. Treitz, P., Howarth, P.J., Shepherd, P.R., Miller, J.R. (1996). Integrating Remote Sensing data and Terrain Variables to Discriminate Forest Ecosystems in Northwestern Ontario, In Proceedings, 26th International symposium on Remote Sensing of Environment / 18th Canadian Symposium on Remote Sensing, Vancouver, B.C., March 25-29, pp. 515-518.
212. Treitz, P., Howarth, P.H. (1995). The Effect of Imaging Resolution on Spectral Reflectance of forest Ecosystems in Northern Ontario, In Proceedings, 17th Canadian Symposium on Remote Sensing, Saskatoon, Saskatchewan, June 13-16, pp. 675-680.
213. Paradine, D., Howarth, P.J., Treitz, P. (1995). Empirical Identification of forest Ecological Parameters from Airborne and Satellite Imagery of Northwestern Ontario, In Proceedings, 17th Canadian Symposium on Remote Sensing, Saskatoon, Saskatchewan, June 13-16 pp. 611-616.
214. Howarth, P.J., Treitz, P. (1995). Spatial Data Integration – Improving Land Cover Classification using Image Analysis and Geographic Information System Technology. National Symposium on GIS Technology, Applications and Resources and Facility Madras, Department of Geography, University of Madras, Madras, India
215. Treitz, P., Howarth, P.J. (1995). Global Positioning System Data for Map Revision – Issues of Accuracy. National Symposium on GIS Technology, Applications and Resources and Facility Madras, Department of Geography, University of Madras, Madras, India
216. Howarth, P.J., Treitz, P., Paradine, D., Kalnins, V., Miller, J., Shepherd, P. Jano, A., Ross, I., Wickware, G., Stanton-Gray, R., Sims, R. (1994). Remote Sensing Data for Forest Ecosystem Classification at Rinker Lake, Northwestern Ontario, Global to local: Ecological Land Classification, Thunder Bay, Ontario
217. Howarth, P.J., Ban, Y., Treitz, P. (1994). Experience and Potentials for using Remote Sensing Imagery in the Study of Agricultural Resources, International Workshop on Land Information Systems and Land Management, Dongsheng, China
218. Treitz, P., Howarth, P.J., Paradine, D. (1994). The Effect of Imaging Scale on Reflectance of Selected Forest Ecosystems in Northern Ontario, Canadian Association of Geographers 199 Annual Conference, Wilfrid Laurier University, Waterloo, Ontario, Canada
219. Howarth, P.J., Treitz, P., Paradine, D., Kalnins, Miller, J., Shepherd, P., Jano, A., Ross, I., Wickware, G., Stanton-Gray, R., Sims, R. (1994). The Contribution of Remote Sensing data to Forest Ecosystem Classification: A Case Study in Northwestern Ontario, Canadian Association of Geographers 1994 Annual Conference, Wilfrid Laurier University, Waterloo, Ontario, Canada
220. Ban, Y., Howarth, P.J., Treitz, P., McNairn, H., Wood, D., Protz, R., Brisco, B., Brown, R. (1994). Application of ERS-1 Temporal-Spectral SAR Profiles for agricultural Crop Identification – Background and Preliminary Results, Canadian Association of Geographers 1994 Annual Conference, Wilfrid Laurier University, Waterloo, Ontario, Canada
221. Paradine, D., Treitz, P., Howarth, P.J., Fooks, B. (1993). Remote Sensing Imagery for Forest Ecosystem Classification in Northwestern Ontario, Creating a Forest for the 21st Century, Portland, Oregon, USA

222. Treitz, P., Rotunno, Filo, O., Howarth, P.J., Soulis, E.D., Kouwen, N. (1993). Classification of Agricultural Crops using SAR Tone and Texture Statistics, Proceedings, 16th Canadian Symposium on Remote Sensing, Sherbrooke, Quebec, June 7-10, pp. 343-347.
223. Treitz, P., Howarth, P.J., Rotunno, Filo, O., Soulis, E.D., Kouwen, N. (1993). Texture Measures for the Classification of Agricultural Crops in Southwestern Ontario, Radar Data Development Program Workshop, Gananoque, Ontario, Canada
224. Bay, Y., Treitz, P., Howarth, P.J. (1993). Methodology for Improving the Accuracy of Synthetic Aperture Radar for Agricultural Crop Identification, Proceedings, 16th Canadian Symposium on Remote Sensing, Sherbrooke, Quebec, June 7-10, 367-370.
225. Treitz, P., Howarth, P.J., Elliot, M.L., Yule, D. (1991). Satellite Technologies and Geographic Information Systems: Data Integration for Database Management. Geographic Information Systems Seminar, Ministry of Natural Resources, Toronto, Ontario, November 25-26, pp. 175-182.
226. Treitz, P., Barber, D.G., Howarth, P.J. (1991). Texture Measures for the Discrimination of Agricultural Crops in Southwestern Ontario, Proceedings, 14th Canadian Symposium on Remote Sensing, Calgary, Alberta, pp. 224-227.
227. Treitz, P., Howarth, P.J. (1991). Spatial Data Integration and Accuracy: A Remote Sensing Perspective, Joint Annual Meeting of the Canadian Cartographic Association and the Ontario Institute of Chartered Cartographers, Brock university, St. Catharines, Ontario, Canada
228. Treitz, P., Howarth, P.J., Elliot, Yule, D. (1991). Global Positioning System Data: Potential for Digital Mapping. Fast Growing Forest Electronic Data Collection Workshop, Ottawa, Canada
229. Treitz, P., Howarth, P.J. (1990). The Role of Satellite Technologies in GIS Database Management, Canadian Association of Geographers – Ontario Division / East Lakes Division of the Association of American Geographers, Brock University, t. Catharines, Ontario
230. Treitz, P., Howarth, P.J., Gong, P., Gratton, D.J. (1990). Integrating Remote Sensing Data within a GIS Environment for Mapping the Changing Landscape at the Rural-Urban Fringe, Proceedings, 13th Canadian Symposium on Remote Sensing, Fredericton, New Brunswick, pp. 448-459.
231. Treitz, P., Howarth, P.J., Gratton, D.J., Holder, G.H., Greatrex, C.A. (1990). GPS and SPOT Data for Map Revision in the rural-Urban Fringe, Proceedings, GIS for the 1990's, Second National Conference on Geographic Information Systems, Ottawa, pp. 1539-1545.
232. Treitz, P., Howarth, P.J., Suffling, R.C. (1989). Detailed Vegetation Mapping from MEIS-II Digital Data, Proceedings, International Geoscience and Remote Sensing Symposium, Vancouver, B.C., pp. 783-786.
233. Brunger, A.G., Treitz, P. (1989). Exurbanite Residential Settlement Patterns in Central Canada: SPOT Imagery Observations in Douro Township, Southern Ontario, 1986, Proceedings, International Geoscience and Remote Sensing Symposium, Vancouver, B.C., pp. 1659-1662.
234. Howarth, P.J., Treitz, P., Johnson, D.D., Wagner, C.L. (1987). Applications of High-Resolution Airborne Digital data in Canada, Workshop on Resources inventory and Monitoring by Remote Sensing, Peking University, Peking, China
235. Treitz, P., Howarth, P.J., Leckie, D.G. (1985). The Capabilities of two Airborne Multispectral Sensors for Classifying Coniferous Forest Species, Proceedings, Nineteenth International Symposium on Remote Sensing of Environment, Ann Arbor, Michigan, pp. 335-350.