

Appointment Status

Associate Professor
Geography, Arts and Sciences, Queen's University at Kingston
Full-time, Term, Associate Professor
Tenure Status: Tenure

Academic Background

- 2004/6 Post-doctorate - Effects of glacier melt on water resources in the prairies -
University of Alberta, Drs. Martin Sharp, David Schindler (2003/9 / 2004/6)
- 2003/9 Doctorate - Glacial hydrology, hydrochemistry - University of Alberta
Supervisor: Martin J. Sharp 1997/9-2003/9
- 1996/4 Bachelor's - Environmental Science and Resource Management - University of
Western Ontario

Work Experience

- 2011/7 Associate Professor
Geography, Arts and Sciences, Queen's University at Kingston
Full-time, Term, Associate Professor
Tenure Status: Tenure

- 2004/7 Assistant Professor
Geography, Arts and Sciences, Queen's University at Kingston
Full-time, Term, Assistant Professor

- 2004/1

Undergraduate Teaching and Course Development

- 2005/1 - present Instructor and Course Designer, Queen's University at Kingston
Course Title: GPHY 411 Biogeochemical Cycles
Course Level: Undergraduate Honours Seminar
- 2005/1 - present Instructor and Course Designer, Queen's University at Kingston
Course Title: GPHY 208 Geomorphology and Pedology
Course Level: Undergraduate
- 2006/9 - present Instructor and Course Designer, Queen's University at Kingston
Course Title: GPHY 311 Watershed Hydrology
Course Level: Undergraduate
- 2007/9 – present Co-Instructor and Co-Course Designer, Queen's University at Kingston
Course Title: GPHY 103 Freshwater Resources
Course Level: Undergraduate
- 2010/4 Co-Instructor and Co-Course Designer, Queen's University at Kingston
Course Title: GPHY 307 Field Studies in Physical Geography
Course Level: Undergraduate

Undergraduate Supervisory Experience

2011/9 - 2014/4

Ashley Rudy

Geography

Queen's

Atmospheres, 120: 11,352-11,367, doi:10.1002/2015/JD023835

Holloway J, Lamoureux SF, Montross S, Lafrenière MJ (2016). Hydroclimatic and Landscape Controls over Mudboil Formation in the Canadian High Arctic. *Permafrost and Periglacial Processes*. 27(2): 204-218.

Wasiuta VW, Lafrenière MJ, Norman A-L, Hastings M (2015) Summer deposition of sulfate and reactive nitrogen to two alpine valleys in the Canadian Rocky Mountains, *Atmospheric Environment*, 101:270-285.

Wasiuta VW, Lafrenière MJ, Norman A-L (2015) Atmospheric nitrogen and sulfur deposition in the Southern Canadian Rocky Mountains. *Journal of Hydrology*, 523: 563–573

Grewer DM, Lafrenière MJ, Lamoureux SF, Simpson MJ (2015) Potential shifts in Canadian High Arctic sedimentary organic matter composition with permafrost active layer detachments. *Organic Geochemistry* 79: 1-13.

Young KL, Lafrenière MJ, Lamoureux SF, Abnizova A, Miller E (2015) Seasonal stream regimes and Multi-Year water budgets of hillslope catchments at Polar Bear Pass and Cape Bounty, Nunavut

Nitrate Reducing Microbial Assemblages in a Subglacial Ecosystem, *Applied Environmental Microbiology*

Thiel G, Fouché F, Lafrenière MJ, Lamoureux SF (2017) Spatial controls on the lability of dissolved organic matter in a High Arctic watershed, Canadian Geophysical Union (CGU) – Canadian Society of Agricultural and Forest Meteorology (CSAFM) National Meeting, Vancouver, Canada, May 28 - 31, 2017, Conference Program, p 40.

Schevers A, Lamoureux SF, Lafrenière MJ, Beel C (2017) Long-term dissolved inorganic nitrogen fluxes from paired watersheds in the Canadian High Arctic, Canadian Geophysical Union (CGU) – Canadian Society of Agricultural and Forest Meteorology (CSAFM) National Meeting, Vancouver, May 28 - 31, 2017, Conference Program, p 41.

Chiasson-Poirier G, Franssen J, Fortier D, Tremblay T, Lafrenière MJ, Shirley J, Lamoureux SF (2017) Hydrogeomorphic factors controlling the routing of surface and shallow groundwater flows in permafrost environments, Canadian Geophysical Union (CGU) – Canadian Society of Agricultural and Forest Meteorology (CSAFM) National Meeting, Vancouver, May 28 - 31, 2017, Conference Program, p 11.

Lafrenière MJ

DR. MELISSA LAFRENIÈRE

Associate Professor

Lamoureux, S.F. and Lafrenière, M.J. (2015) Impacts of permafrost change on landscape stability and water quality (Invited-oral) American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, Dec 13-18th, 2015. (INVITED, Oral)

Lafrenière, M.J. and S.F. Lamoureux (2015) Collaboration for Research Success, Invited Plenary,

Muir, D.C.G., Kirk, J.L., Gleason, A., Wang, X., Sett, A., Iqaluk, D., Lamoureux, S., Lafrenière, MJ. 2013. Bioaccumulation of mercury in arctic char in East and West Lake, Cape Bounty Arctic Watershed Observatory, Melville, Island, NU. ArcticNet 2013 Annual Scientific Meeting, Halifax, Dec 9-12, 2013. p.159.

Lamhonwah, D., Lafrenière, M., Lamoureux, S., Montross, S., Wolfe, B. 2013. An end member mixing

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Mineralogical Magazine, 76(6) 2524 Goldshmidt 2012, Montreal, Canada, June 24-29, 2012.

Lafrenière, M. J, S. F. Lamoureux, and H. Munro 2012. Impact of Warming and Permafrost Disturbance on Solute and Nutrient Export in High Arctic Watersheds, IPY 2012 from Knowledge to Action, April 22-29, 2012 (oral)

Research Funds – External/Internal

Period of Funding	Role	Principal Applicant	Funding Organization	Title	Amount (CAN\$)
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2014/9		and Lafrenière MJ	Field Aircraft Support Program	system processes and impacts due to changing permafrost	
2014/4- 2014/9	Co-PI	Lamoureux, SF and Lafrenière MJ	PCSP -in kind logistics, Natural Resources Canada	Integrated landscape and aquatic system processes and impacts due to changing permafrost	69,600
2010/1 - 2013/12	Co-PI	Lafrenière, MJ and Lamoureux SF	NSERC Strategic Projects Grant	Modeling High Arctic permafrost landscape stability and water quality for changing climate and resources development	597,475
2013/4- 2013/9	Co-PI	Lamoureux, SF and Lafrenière MJ	ArcticNet NCE - Field Aircraft Support Program	Landscape and aquatic system processes and impacts due to changing permafrost	32,000
2013/4- 2013/9	Co-PI	Lamoureux, SF and Lafrenière MJ	PCSP -in kind logistics, Natural Resources Canada	Spatial dimensions and downstream impacts of permafrost perturbation on High Arctic terrestrial and aquatic systems	70,000
2012/4 - 2013/3	Co-				

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2011/3		and Lafrenière MJ		landscape and ecosystem responses to climate change
2010/4 - 2010/9	Co-Lead	Lamoureux SF and Lafrenière, MJ	PCSP -in kind logistics,	

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2007/7 - 2009/6 Department of Geography, Renewal Tenure and Promotion (RTP) Committee
2006/7 - 2009/5 School of Graduate Studies, Division IV (Physical Sciences) Committee -
Queen's University at Kingston