Gwenn Elizabeth Flowers

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Citizenship: Canadian/American

Education

2000 Ph.D.	Earth and Ocean Sciences (Geophysics), University of British Columbia, Canada Thesis: A Multicomponent Coupled Model of Glacier Hydrology (Advisor: Dr. Garry K.C. Clarke)
1994 B.A.	Physics with Chemistry Minor (Summa Cum Laude), University of Colorado, United States, Thesis: Optical Cooling and Trapping of Rubidium (Advisors: Drs. Carl Wieman and Sarah Gilbert)

Employment

2017–current	Tenured Professor, Department of Earth Sciences, Simon Fraser University
2010–2017	Tenured Associate Professor, Department of Earth Sciences, Simon Fraser University
2005–2014	Tier 2 Canada Research Chair in Glaciology, Department of Earth Sciences, Simon Fraser University
2005–2010	Assistant Professor, Department of Earth Sciences, Simon Fraser University
2002–2004	Postdoctoral Researcher, Earth and Ocean Sciences, University of British Columbia
2000–2002	Postdoctoral Fellow, Science Institute, University of Iceland
1993–1994	Research Assistant, Department of Physics, University of Colorado
1993	Research Assistant, Joint Institute for Laboratory Astrophysics, University of Colorado
1991, 1992	Research Assistant, National Renewable Energy Laboratory, Golden, Colorado

Other Appointments

2012–current	Adjunct Professor, Institute of Earth Sciences, University of Iceland

Awards, Honours and Fellowships

2015	Recipient, NSERC Discovery Accelerator Supplement ($120,000)
2011	Fellow, Royal Canadian Geographical Society
2010	Recipient, NSERC Discovery Accelerator Supplement ($120,000)
2009	Young Scientist Award, Canadian Geophysical Union
2008	Marie Tharp Visiting Fellowship, Columbia University (deferred to Fall 2009)
2006	Outstanding Young Scientist, European Geophysical Union
2000	International Research Fellow Postdoctoral Award, U.S. National Science Foundation

RESEARCH

Publications (students/PDFs underlined)

Refereed journals (accepted or in press)

1. [*]Schroeder, D., R. Bingham, D. Blankenship, K. Christianson, O. Eisen, G.E. Flowers, N.B. Karlsson, M.R. Koutnik, J.D. Paden, M. Siegert. 2020. Five decades of radioglaciology. *Annals of Glaciology,* 1-13. doi:10.1017/aog.2020.11

2. Mingo, L., **G.E. Flowers**, A.J. Crawford, D. Mueller, D.G. Bigelow. 2020. A stationary impulse-radar system for autonomous deployment in cold and temperate environments, *Annals of Glaciology*, https://doi.org/10.1017/aog.2020.2, 1-9.

Refereed journals (version of record published in final form)

3. Bigelow, D.G., **G.E. Flowers**, C.G. Schoof, L.D.B. Mingo, E.M. Young, B. Connal. 2020. The Role of Englacial Hydrology in the Filling and Drainage of an Ice-Dammed Lake, Kaskawulsh Glacier, Yukon, Canada, *Journal of Geophysical Research - Earth Surface*, 125, e2019JF005110, doi.org/10.1029/2019JF005110

4. Williamson, S.N., C. Zdanowicz, F.S. Anslow, G.K. Clarke, L. Copland, R.K. Danby, G.E. **Flowers**, G. Holdsworth, A.H. Jarosch, and D.S. Hik. 2020. Evidence for Elevation-Dependent Warming in the St. Elias Mountains, Yukon, Canada. *Journal of Climate,* **33**, 3253–3269, https://doi.org/10.1175/JCLI-D-19-0405.1.

5. Crompton, J.W., **G.E. Flowers**, B. Dyck. 2020. Characterization of glacial silt and clay using automated mineralogy, *Annals of Glaciology*, *60*(80), 49-65. doi:10.1017/aog.2019.45.

6. Anderson, L.S., Á Geirsdóttir, **G.E. Flowers**, A.D. Wickert, G. Aðalgeirsdóttir, Th. Thorsteinsson. 2019. Controls on the lifespans of Icelandic ice caps. *Earth and Planetary Science Letters*, doi.org/10.1016/j.epsl.2019.115780, 527, 115780.

7. Pulwicki, A., **G. E. Flowers**, D. Bingham. 2019. Pursuit of optimal design for winter-balance surveys of valley-glacier ablation areas, *Frontiers in Earth Science*, doi.org/10.3389/feart.2019.00199, 7, 199.

8. [†]Beaud, F.B., **G.E. Flowers**, J.G. Venditti. 2018. Modeling sediment transport in ice-walled subglacial channels and its implications for esker formation and proglacial sediment yields, *Journal of Geophysical Research – Earth Surface*, doi.org/10.1029/2018JF004779, 123, 3206–3227.

9. Pulwicki, A., **G. E. Flowers**, V. Radić, D. Bingham. 2018. Estimating winter balance and its uncertainty from direct measurements of snow depth and density on alpine glaciers, *Journal of Glaciology*, 64(247), doi.org/10.1017/jog.2018.68, 781-795.

10. [‡]**Flowers, G.E.** 2018. Hydrology and the future of the Greenland Ice Sheet. *Nature Communications* (solicited Comment), 9(1), 10.1038/s41467-018-05002-0, 2729.

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[*] Order of co-authorship is alphabetical

[†] Subject of Commentary: Arnold, N., 2019. A new model for esker formation sheds light on the processes within subglacial tunnels. *Journal of Geophysical Research: Earth Surface*, *124*(3), 700-704.

[‡] Solicited Comments are not peer-reviewed

11. Anderson, L.S., **G.E. Flowers**, A.H. Jarosch, G. Aðalgeirsdóttir, À. Geirsdóttir, G.H. Miller, D.J. Harning, Th. Thorsteinsson, E. Magnússon, F. Pálsson, T. Jóhannesson. 2018. Holocene glacier and climate variations in Vestfirðir, Iceland, from the modeling of Drangajökull ice cap, *Quaternary Science Reviews*, 190, doi.org/10.1016/j.quascirev.2018.04.024, 39–56.

12. Beaud, F., J.G. Venditti, **G.E. Flowers**, M. Koppes. 2018. Excavation of subglacial bedrock channels by seasonal meltwater flow, *Earth Surface Processes and Landforms*, 43, doi: 10.1002/esp.4367, 1960–1972.

13. Crompton, J.W., **G.E. Flowers**, D. Stead. 2018. Bedrock fracture characteristics as a possible control on the distribution of surge-type glaciers, *Journal of Geophysical Research - Earth Surface*, 123, doi.org/10.1002/2017JF004505, 853–873.

14. Pimentel, S., **G.E. Flowers**, M.J. Sharp, B. Danielson, L. Copland, W. Van Wychen, A. Duncan, J.L. Kavanaugh. 2017. Modelling intra-annual dynamics of a major marine-terminating Arctic glacier, *Annals of Glaciology*, 58(74), doi:10.1017/aog.2017.23, 118-130.

15. Aso, N., V. Tsai, V., C. Schoof, **G. Flowers**, A. Whiteford, C. Rada, 2017. Seismologically observed spatio-temporal drainage activity at moulins, *Journal of Geophysical Research—Solid Earth*, 122, doi: 10.1002/2017JB014578, 9095–9108.

16. Gilbert, A., **G.E. Flowers**, G.H., Miller, K.A., Refsnider, N.E. Young and V. Radić, 2017. The projected demise of Barnes Ice Cap: Evidence of an unusually warm 21st century Arctic. *Geophysical Research Letters*, *44*(6), doi:10.1002/2016GL072394, 2810-2816.

17. Pratola, M.T., O. Harari, D. Bingham, **G.E. Flowers**. 2017. Design and analysis of experiments on non-convex regions[§], *Technometrics*, 59(1), doi: 10.1080/00401706.2015.1115674, 36-47.

18. King, L., M. Hassan, K. Yang, **G. Flowers**. 2016. Flow routing for delineating supraglacial meltwater channel networks, *Remote Sensing*, 8(12), doi:10.3390/rs8120988, 988[**].

19. Gilbert, A., **G.E. Flowers**. G.H. Miller, B.T. Rabus, W. Van Wychen, A.S. Gardner, L. Copland, 2016. Sensitivity of Barnes Ice Cap, Baffin Island, Canada, to climate state and internal dynamics. *Journal of Geophysical Research—Earth Surface*, 121, doi:10.1002/2016JF003839, 1516-1539.

20. Crompton, J.W. and **G.E. Flowers**. 2016. Correlations of suspended sediment size with bedrock lithology and glacier dynamics. *Annals of Glaciology*, 57(72), doi:10.1017/aog.2016.6, 142-150.

21. F**lowers, G.E.,** A.H. Jarosch, P.T.A.P. Belliveau, L.A. Fuhrman. 2016. Short-term velocity variations and sliding sensitivity of a slowly surging glacier. *Annals of Glaciology*, 57(72), doi:10.1017/aog.2016.7, 71-83.

22. Beaud, F.B., **G.E. Flowers**, J.G Venditti. 2016. Efficacy of bedrock erosion by subglacial water flow, *Earth Surface Dynamics*, 4, doi.org/10.5194/esurf-4-125-2016, 125-145.

23. Crompton, J.W., **G.E. Flowers**, D. Kirste, B. Hagedorn, M.J. Sharp, 2015. Clay mineral precipitation and low silica in glacier meltwaters explored through reaction path modelling, *Journal of Glaciology*, 61(230), 1061-1078.

[§] Received Wilcoxon Award ($1000 USD) for best practical application paper appearing in 2017 in *Technometrics*

[**] Note that from the first issue of 2016, MDPI journals use article numbers instead of page numbers. See http://www.mdpi.com/2072-4292/8/12/988.

24. **Flowers, G.E.** 2015. Modelling water flow under glaciers and ice sheets. *Proceedings of the Royal Society A* 471: 20140907, doi:10.1098/rspa.2014.0907.
25. Beaud, F.B., **G.E. Flowers**, S. Pimentel. 2014. Seasonal-scale abrasion and quarrying patterns from a two-dimensional ice-flow model coupled to distributed and channelized subglacial drainage, *Geomorphology*, 219, 176-191.
26. Schoof, C.G., C.A. Rada, N.J. Wilson, **G.E. Flowers**, M. Haseloff. 2014. Oscillatory subglacial drainage in the absence of surface melt, *The Cryosphere*, 8, 959–976.
27. Wheler, B.A., A.H. MacDougall, **G.E. Flowers,** E.I. Petersen, P.H. Whitfield, K.E. Kohfeld, 2014. Effects of temperature forcing provenance and lapse rate on the performance of an empirical glacier-melt model. *Arctic, Antarctic, and Alpine Research*, 46(2), 379-393.
28. Wilson. N.J., **G.E. Flowers**, L. Mingo. 2014. Mapping and interpretation of bed reflection power from a surge-type polythermal glacier. *Annals of Glaciology*, 55(67), 1-8.
29. **Flowers, G.E.,** L. Copland, C.G. Schoof. 2014. Contemporary glacier processes and global change, *Arctic* (KLRS 50th Anniversary Issue), 1-20.
30. Williamson, S.N., D.S. Hik, J.A. Gamon, J.L. Kavanaugh, **G.E. Flowers**. 2014. Estimating mean surface air temperature from MODIS Land Surface Temperature observations in a sub-Arctic alpine environment. *Remote Sensing*, 6(2), 946-963.
31. Werder, M.A., I. Hewitt, C.G. Schoof, **G.E. Flowers.** 2013. Modeling channelized and distributed subglacial drainage in two dimensions. *Journal of Geophysical Research – Earth Surface*, 118, 2140–2158.
32. Wilson, N.J., **G.E. Flowers**, L. Mingo. 2013. Comparison of thermal structure and evolution between neighboring subarctic glaciers. *Journal of Geophysical Research – Earth Surface*, 118, 1443–1459.
33. Joughin, I., Das, S.B., **Flowers, G.E.,** Behn, M.D., Alley, R.B., King, M.A., Smith, B.E., Bamber, J., van den Broeke, M.R., van Angelen, J.H., 2013. Influence of supraglacial lakes and ice-sheet geometry on seasonal ice-flow variability, *The Cryosphere*, 7, 1185–1192.
34. Wilson, N.J. and **G.E. Flowers.** 2013. Environmental controls on the thermal structure of alpine glaciers, *The Cryosphere,* 7, 167-182, doi.org/10.5194/tc-7-167-2013.
35. MacDougall, A. H., B.A. Wheler, and **G.E. Flowers**. 2011. A preliminary assessment of glacier melt-model parameter sensitivity and transferability in a dry subarctic environment, *The Cryosphere*, 5, 1011-1028.
36. **Flowers, G.E.**, N. Roux, S. Pimentel, C. Schoof. 2011. Present dynamics and future prognosis of a slowly surging glacier, *The Cryosphere,* 5, 299-313.
37. MacDougall, A.H. and **G.E. Flowers**. 2011. Spatial and temporal transferability of a distributed energy-balance glacier melt-model. *Journal of Climate*, 24(5), 1480-1498.
38. Wheler, B.A. and **G.E. Flowers**. 2011. Glacier subsurface heat-flux characterizations for energy balance modelling in the Donjek Range, southwest Yukon Territory, Canada. *Journal of Glaciology*, 57(201), 121-133.
39. Pimentel, S. and **G.E. Flowers**. 2011. A numerical study of hydrologically driven glacier dynamics and subglacial flooding. *Proceedings of the Royal Society A*, 467, 537-558.

40. **Flowers, G.E.** 2010. Glacier hydromechanics: early insights and the lasting legacy of three works by Iken and colleagues. *Journal of Glaciology*, 56(200), 1069-1078.
41. Pimentel, S., **G.E. Flowers**, C.G. Schoof. 2010. A hydrologically coupled higher-order flow-band model of ice dynamics with a Coulomb friction sliding law, *Journal of Geophysical Research—Earth Surface*, 115, F04023.
42. Mingo, L. and **G.E. Flowers**. 2010. An integrated lightweight ice-penetrating radar system. *Journal of Glaciology*, 56(198), 709-714.
43. De Paoli, L. and **G.E. Flowers**. 2009. Dynamics of a small surge-type glacier investigated using 1-D geophysical inversion, *Journal of Glaciology*, 55(194), 1101-1112.
44. Boon, S., **G.E. Flowers** and D.S. Munro. 2009. Canadian glacier hydrology. *Canadian Water Resources Journal*, 22, 3903-3918.
45. **Flowers, G.E.**, 2008. Subglacial modulation of the hydrograph from glacierized basins. *Hydrological Processes*, 22(19), 3903-3918.
46. **Flowers, G.E.**, H. Björnsson, A. Geirsdóttir, G.H. Miller, J.L. Black and G.K.C. Clarke. 2008. Holocene climate conditions and glacier variation in central Iceland from physical modelling and empirical evidence. *Quaternary Science Reviews*, 27, 797-813.
47. **Flowers, G.E.**, H. Björnsson, A. Geirsdóttir, G.H. Miller and G.K.C. Clarke. 2007. Glacier fluctuation and inferred climatology of Langjökull ice cap through the Little Ice Age. *Quaternary Science Reviews*, 22, 2337-2353.
48. Huntington, H.P., M. Boyle, **G.E. Flowers**, J.W. Weatherly, L.C. Hamilton, L. Hinzman, C. Gerlach, R. Zulueta, C. Nicolson, J. Overpeck. 2007. The influence of human activity in the Arctic on climate and climate impacts. *Climatic Change*, 82, 77-92.
49. Marshall, S.J., H. Björnsson, **G.E. Flowers** and G.K.C. Clarke. 2005. Simulation of Vatnajökull ice cap dynamics. *Journal of Geophysical Research*, 110, F03009.
50. **Flowers, G.E.**, S.J. Marshall, H. Björnsson and G.K.C. Clarke. 2005. Sensitivity of Vatnajökull ice cap hydrology and dynamics to climate warming over the next 2 centuries. *Journal of Geophysical Research*, 110, F02011.
51. Fischer, U.H., A. Braun, A. Bauder and **G.E. Flowers**. 2005. Changes in geometry and subglacial drainage derived from digital elevation models: Unteraargletscher, Switzerland, 1927–97. *Annals of Glaciology*, 40, 20-24.
52. **Flowers, G.E.**, H. Björnsson, F. Pálsson and G.K.C. Clarke. 2004. A coupled sheet–conduit model for jökulhlaup propagation. *Geophysical Research Letters*, 31 L05401.
53. Hildes, D.H.D., G.K.C. Clarke, **G.E. Flowers** and S.J. Marshall. 2004. Modelling subglacial erosion and englacial sediment transport of the North American ice sheets. *Quaternary Science Reviews*, 23, 409-430.
54. Björnsson, H., F. Pálsson, O. Sigurdsson and **G.E. Flowers**. 2003. Surges of glaciers in Iceland. *Annals of Glaciology*, 36, 82-90.
55. **Flowers, G.E.**, H. Björnsson and F. Pálsson. 2003. New insights into the subglacial and periglacial hydrology of Vatnajökull, Iceland, from a distributed physical model. *Journal of Glaciology*, (165), 257-270.

56. **Flowers, G.E.** and G.K.C. Clarke. 2002. A multicomponent coupled model of glacier hydrology, 2, Application to Trapridge Glacier, Yukon, Canada. *Journal of Geophysical Research*, 107(B11), 2288.
57. **Flowers, G.E.** and G.K.C. Clarke. 2002. A multicomponent coupled model of glacier hydrology, 1, Theory and synthetic examples. *Journal of Geophysical Research*, 107(B11), 2287.
58. **Flowers, G.E.** and G.K.C. Clarke. 2000. An integrated modelling approach to understanding subglacial hydraulic release events. *Annals of Glaciology*, 31, 222–228.
59. **Flowers, G.E.** and G.K.C. Clarke. 1999. Surface and bed topography of Trapridge Glacier, Yukon Territory, Canada: digital elevation models and derived hydraulic geometry. *Journal of Glaciology*, 45(149), 165–174.
60. Wieman, C.E., **G.E. Flowers** and S.L. Gilbert. 1995. Inexpensive laser cooling and trapping experiment for undergraduate laboratories. *American Journal of Physics*, 63(4), 317–330, https://doi.org/10.1119/1.18072

Theses

1. **Flowers, G.E.** 2000. A multicomponent coupled model of glacier hydrology (Ph.D. thesis, University of British Columbia)
2. **Flowers, G.E.** 1994. An optical cooling and trapping apparatus for undergraduate laboratories (B.Sc. thesis, University of Colorado)

Conference presentations (students/PDFs underlined)

Solicited

1. American Geophysical Union Fall Meeting, Washington, DC, 10-14 December 2018. Coupled englacial and subglacial hydromechanical processes revealed in the filling and drainage of an ice-dammed lake (**G.E. Flowers**, D.G. Bigelow, C.G. Schoof, L.D.B. Mingo, E.M. Young, C. Rada, B.G. Connal)
2. Geological Society of America Annual Meeting, Seattle, WA, 22-25 October 2017. Remnant of the ice age meets 21st century climate: modeling of the form, flow, and future of Barnes Ice Cap, Baffin Island, Canada (**G.E. Flowers**, A. Gilbert, G.H. Miller)
3. European Geosciences Union General Assembly, Vienna, Austria, 23-28 April 2017. Implications of sediment transport by subglacial water flow for interpreting contemporary glacial erosion rates (F. Beaud, **G.E. Flowers**, J.G. Venditti)
4. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2015. Geological Controls on Glacier Surging?: Statistics and Speculation (**G.E. Flowers**, J.W. Crompton)
5. KEYNOTE: International Glaciological Society Symposium on Contribution of Glaciers and Ice Sheets to Sea Level Change, Chamonix, France, 26-30 May 2014. A current perspective on modelling subglacial drainage (**G.E. Flowers**)
6. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2013. Modeling subglacial hydrology and what that may tell us about erosion (M.A. Werder, **G.E. Flowers**)
7. Symposium in honour of Helgi Björnsson, 12 January 2013. Radar detection and numerical modelling of glacier thermal structure in a subarctic continental setting (**G.E. Flowers**, N.J. Wilson)

8. American Geophysical Union Fall Meeting, San Francisco, CA, 13-17 December 2010. Capturing the effects of subglacial flooding and seasonal transitions in a flowband model of ice dynamics (**G.E. Flowers**, S. Pimentel)
9. European Geophysical Union General Assembly, Vienna, Austria, 2-7 April 2006. Inferring Holocene thermal maximum temperatures for central Iceland from glaciological modelling and empirical evidence. (**Flowers, G.E.)**
10. Canadian Quaternary Association Conference, Winnipeg, MB, 5–8 June 2005. The influence of glacier bed processes on the modelled dynamics of Vatnajökull ice cap, Iceland. (**Flowers, G.E.)**
11. European Geophysical Union General Assembly, Vienna, Austria, 24–29 April 2005. Basal hydrology and the dynamic climate sensitivity of Vatnajökull ice cap. (**Flowers, G.E.)**
12. European Geophysical Union First General Assembly, Nice, France, 25–30 April 2004. Rapid propagation of a large jökulhlaup. (**Flowers, G.E.)**
13. American Geophysical Union Fall Meeting, San Francisco, CA, 6-10 December 2002. Ice-sheet hydrology and the deglaciation of North America. (**Flowers, G.E.)**

Contributed (selected, 2005-2020)

1. European Geosciences Union General Assembly, Vienna, Austria, 3-8 May 2020. Estimating the configuration of the subglacial drainage system under a mountain glacier in the St. Elias Mountains, Yukon (Racz, G., C.G. Schoof, C. Rada, R. Koschitzki, E. Haber, G.E.Flowers)
2. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2019. Novel seismic array to study the Mt. Meager Volcano (J. Dettmer, H. Gilbert, S. Grasby, P. Paitz, A. Fichtner, **G.E. Flowers**, G. Williams-Jones, M. Karrenbach)
3. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2019. Using QEMSCAN data to elucidate chemical and physical controls on subglacial silt and clay production (J.W. Crompton, **G.E. Flowers**)
4. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2019. Understanding the drivers of Kaskawulsh Glacier thinning, southwest Yukon, Canada, 2007-2018 (E.M. Young, **G.E. Flowers,** E. Berthier, R. Latto)
5. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2019. Surge of Little Kluane Glacier in the St. Elias Mountains, Yukon, Canada, from 2017-2018 (B. Main, L. Copland, S.V. Samsonov, C.F. Dow, **G.E. Flowers**, E.M. Young, W.H. Kochtitzky)
6. OceanObs'19, Honolulu, HI, USA, 16-20 September 2019. The case for a sustained Greenland Ice-sheet Ocean Observing System (GrIOOS) (F. Straneo, G. Catania, P. Heimbach, T. Moon, L. Stearns, D. Sutherland, A. Ahlstrom, E. Hanna, I. Joughin, S. Price, S. Rysgaard, M Truffer, J. Amundson, C. Andresen, **G. Flowers**, T. Kanzow, R. Mottram, P. Nienow, A. Vieli, S.A. Khan)
7. International Union for Quaternary Research Congress, Dublin, Ireland, 25–31 Jul 2019. The expected lifespans of Icelandic Ice Caps (L.S. Anderson, Á. Geirsdóttir, **G.E. Flowers**, A.D. Wickert, G. Aðalgeirsdóttir, Th. Thorsteinsson)
8. International Glaciological Society Symposium on Five Decades of Radioglaciology, Palo Alto, CA, United States, 8-12 July 2019. Autonomous monitoring of englacial hydrology using stationary impulse radar systems (**G.E. Flowers**, L.D.B. Mingo, D.G. Bigelow)

9. International Glaciological Society Symposium on Glacial Erosion and Sedimentation, Madison WI, United States, 12-17 May 2019. Mineralogical and grain-size controls on comminution (J.W. Crompton, **G.E. Flowers**)
10. European Geosciences Union General Assembly, Vienna, Austria, 7–12 April 2019. The role of englacial hydrology and hydromechanical processes during an outburst flood cycle from an ice-dammed lake (D.G. Bigelow, **G.E. Flowers**, C.G. Schoof, L.D.B. Mingo, E.M. Young, B. Connal, C. Rada)
11. European Geosciences Union General Assembly, Vienna, Austria, 7–12 April 2019. Field constraints on the effect of water supply on the evolution of the subglacial drainage system (G. Racz, C.G. Schoof, V. Radic. **G.E. Flowers**, E.M. Young, R. Koschitzki)
12. European Geosciences Union General Assembly, Vienna, Austria, 7–12 April 2019. High Resolution InSAR Investigation of Increased Landslide Motion and Non-steady-state Glacier Flow on Mount Meager, BC, Canada (F. Hosseini, A. Gribbon, B. Rabus, **G. Flowers**)
13. European Geosciences Union General Assembly, Vienna, Austria, 7–12 April 2019. The expected lifespans of Icelandic Ice Caps (L.S. Anderson, Á. Geirsdóttir, **G.E. Flowers**, A.D. Wickert, G. Aðalgeirsdóttir, Th. Thorsteinsson)
14. Workshop on the Dynamics and Mass Budget of Arctic Glaciers & the IASC Network on Arctic Glaciology Annual Meeting, 21-23 January 2019, Geilo, Norway. Experimental design of in-situ mass-balance measurement networks (**G.E. Flowers**, A. Pulwicki, D. Bingham, S. Surjanovic)
15. ArcticNet Annual Scientific Meeting, Ottawa, ON, 10-14 Dec 2018. Subglacial Extraterrestrial Analogue Research in the Canadian High Arctic: SEARCHArctic: Future exploration of the Devon hypersaline subglacial lakes (Dubnick, A., Criscitiello, A., Rutishauser, A., Dow, C., Sharp, M., **Flowers, G**., Schoof, C., Soderlund, K, Skidmore, M., Bhatia, M., Blake, E., Blankenship, D., Greenbaum, J., Grima, C.)
16. American Geophysical Union Fall Meeting, Washington, DC, 10-14 December 2018. Optimal snow-survey design for the estimation of winter balance on alpine glaciers (**G.E. Flowers**, A. Pulwicki**,** D. Bingham, S. Surjanovic)
17. American Geophysical Union Fall Meeting, Washington, DC, 10-14 December 2018. Seasonal evolution of the subglacial drainage and its influence on the surface speed at a small alpine glacier on the St. Elias Range, Yukon Territory, Canada (C. Rada, C.G. Schoof, **G.E. Flowers**)
18. American Geophysical Union Fall Meeting, Washington, DC, 10-14 December 2018. The spatial variability and characteristics of moulins in southwest Greenland (King, L., **G.E. Flowers**, M. Hassan)
19. International Glaciological Society Symposium on Timescales, Processes and Glacier Dynamics, Buffalo, NY, 3-8 June 2018. Englacial hydrology in the vicinity of an ice-dammed lake (D.G. Bigelow, **G.E. Flowers**, C.G. Schoof, E.M. Young)
20. International Glaciological Society Symposium on Timescales, Processes and Glacier Dynamics, Buffalo, NY, 3-8 June 2018. Spatial and temporal variations in englacial radiostratigraphy associated with an ice-dammed lake (**G.E. Flowers**, D.G. Bigelow, L.D.B. Mingo)
21. 48th International Arctic Workshop, Boulder, CO, 5-6 April 2018. The lifespan of Icelandic Ice Caps: Holocene inception to future wasting (L.S. Anderson, **G.E. Flowers**, Á. Geirsdóttir, G.H. Miller, D.J. Harning, D.J. Larsen)

22. ArcticNet Annual Meeting, Quebec City, QC, 11-15 December 2017. Englacial temperature changes in a high-Arctic polythermal glacier: 1960-2017 (L. Thomson**, G.Flowers**, L. Copland)
23. American Geophysical Union Fall Meeting, New Orleans, LA, 11-15 December 2017. The influence of bedrock fracture characteristics on glacier dynamics (J.W. Crompton**, G.E. Flowers**)
24. ††American Geophysical Union Fall Meeting, New Orleans, LA, 11-15 December 2017. Uncertainty in estimates of net seasonal snow accumulation on glaciers from in-situ measurements (A. Pulwicki**, G.E. Flowers,** V. Radic). **Winner of Outstanding Student Presentation Award.**
25. Canadian Geophysical Union Annual Meeting, Vancouver, BC, 28-31 May 2017. Using computer model uncertainty to determine optimal design of mass-balance stake networks (S. Surjanovic, D. Bingham**, G.E. Flowers**)
26. Canadian Geophysical Union Annual Meeting, Vancouver, BC, 28-31 May 2017. Multi-scale investigation of snow accumulation on alpine glaciers (A. Pulwicki, **G.E. Flowers**)
27. Canadian Geophysical Union Annual Meeting, Vancouver, BC, 28-31 May 2017. The influence of bedrock fracture intensity on glacier dynamics (J.W. Crompton**, G.E. Flowers**)
28. Joint Meeting of the Japan Geoscience Union and the American Geophysical Union Fall Meeting, Japan, 20-25 May 2017. Moulins Detected as Ambient Noise Sources at the Kaskawulsh Glacier (N. Aso, V. Tsai, C.G. Schoof, A. Whiteford, **G.E. Flowers**)
29. ‡‡European Geosciences Union General Assembly, Vienna, Austria, 23-28 April 2017. Numerical modelling of esker formation in semi-circular subglacial channels (F. Beaud, **G.E. Flowers**, J.G. Venditti). **Winner of Outstanding Student Poster Award.**
30. 47th International Arctic Workshop, Buffalo, NY, 23-25 March 2017. New cosmogenic radionuclide data constrain the frequency of disappearance of the Greenland and Laurentide ice sheets through the full Quaternary (G. Miller, S. Pendelton, J. Schaefer, N. Young, J. Briner, A. Gilbert, **G. Flowers**)
31. American Geophysical Union Fall Meeting, San Francisco, CA, 12-16 December 2016. The spatial variability of supraglacial channel networks in Greenland (L. King, M. Hassan, **G.E. Flowers**)
32. American Geophysical Union Fall Meeting, San Francisco, CA, 12-16 December 2016. Moulins Detected as Ambient Noise Sources at the Kaskawulsh Glacier (N. Aso, V. Tsai, C.G. Schoof, A. Whiteford, **G.E. Flowers**)
33. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2015. Diurnal Wind Regimes and Lapse-Rate Variability Over Clean and Debris-Covered Ice (**G.E. Flowers**, E. Young)
34. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2015. Design and deployment of a stationary ice-penetrating radar system (L. Mingo, **G.E. Flowers**, D. Saint Jacques)
35. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2015. Seasonal Variation in Basal Shear Stress Beneath the Greenland Ice Sheet (I. Joughin, R.B. Alley, M.D. Behn, S. Das, **G.E. Flowers**)
36. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2015. Excavation of Tunnel Valleys and Inner Gorges by Subglacial Meltwater Erosion (F. B. Beaud, **G.E. Flowers**, J.G. Venditti, M. Koppes)

†† Winner of AGU Outstanding Student Presentation Award
‡‡ Winner of EGU Outstanding Student Poster Award

37. International Glaciological Society Symposium on the Hydrology of Glaciers and Ice Sheets, Iceland, 21-26 June 2015. Short-term velocity variations and sliding sensitivity of a slowly surging glacier (**G.E. Flowers,** A.H. Jarosch, P.T.A.P. Belliveau)
38. International Glaciological Society Symposium on the Hydrology of Glaciers and Ice Sheets, Iceland, 21-26 June 2015. A stationary ice-penetrating radar system for detection of transient glacio-hydraulic conditions (L. Mingo, **G.E. Flowers**)
39. International Glaciological Society Symposium on the Hydrology of Glaciers and Ice Sheets, Iceland, 21-26 June 2015. Numerical modelling of bedrock erosion by sediment-transporting subglacial water (F. Beaud, **G.E. Flowers,** J.G. Venditti)
40. Canadian Meteorological and Oceanographic Society 49th Congress, Whistler, BC, Canada, 31 May-4 June 2015. Recent and future evolution of Barnes ice cap, Baffin Island, Canada (A. Gilbert, **G.E. Flowers**)
41. Canadian Meteorological and Oceanographic Society 49th Congress, Whistler, BC, Canada, 31 May-4 June 2015. Modelling the dynamic response of Belcher Glacier (Devon Island, Nunavut) to seasonal surface melt (S. Pimentel, **G.E. Flowers**)
42. Arctic Net Annual Meeting Meeting, Ottawa, ON, 8-12 December 2014. Signature of a jökulhlaup event in a subarctic glacier obtained with a stationary ice-penetrating radar system (L. Mingo, **G.E. Flowers**)
43. American Geophysical Union Fall Meeting, San Francisco, CA, 15-19 December 2014. Reaction path modelling used to explore the relationship between secondary mineral precipitation and low Si content in the meltwaters of a polythermal surge-type glacier (J.W. Crompton, **G.E. Flowers**, D. Kirste, B. Hagedorn)
44. Geological Society of America Meeting, Vancouver, BC, 19-22 October 2014. The role of basal freeze on and secondary mineral precipitation in glacier meltwater chemistry (J.W. Crompton, **G.E. Flowers**, D. Kirste, B. Hagedorn)
45. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2013. Flowband modeling of glacial erosion with a multi-morphology subglacial drainage system and process-based erosion laws (F. Beaud, **G.E. Flowers**)
46. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2013. Combined influence of temperature forcing and lapse rate on empirical melt-model performance (**G.E. Flowers**, B.A. Wheler, A.H. MacDougall, E.I. Petersen, P.H. Whitfield, K.E. Kohfeld)
47. American Geophysical Union Fall Meeting, San Francisco, CA, 9-13 December 2013. Oscillatory subglacial drainage in the post-melt season (C.G. Schoof, C. Rada, N.J. Wilson, **G.E. Flowers**)
48. International Glaciological Society Symposium on Radioglaciology, Lawrence, Kansas, 9-13 September 2013. Wireless control of a portable lightweight dual-frequency radar system (L. Mingo, L., **G.E. Flowers**, N.J. Wilson)
49. American Geophysical Union Fall Meeting, San Francisco, CA, 3-7 December 2012. Climate, Ice, and Mud: investigating the relationship between glacier activity and sediment flux using varved lake sediments, Iceland (D.J. Larsen, G.H. Miller, Á. Geirsdóttir, **G.E. Flowers**, H. Björnsson)
50. American Geophysical Union Fall Meeting, San Francisco, CA, 3-7 December 2012. Mapping and modelling of polythermal glacier structure in a meltwater-dominated thermal regime (N.J. Wilson, **G.E. Flowers**, L. Mingo)

51. American Geophysical Union Fall Meeting, San Francisco, CA, 3-7 December 2012. 2D subglacial drainage system model applied to a catchment of the Greenland ice sheet (M.A. Werder, I. Joughin, I.J. Hewitt, J. Bamber, M. van den Broeke, D. Shean, C.G. Schoof, **G.E. Flowers**)
52. International Symposium on Glaciers and Ice Sheets in a Warming Climate, AK, 25-29 June 2012. Sensitivity of modeled sliding and erosion rates to non-steady basal hydraulic conditions (F. Beaud, **G.E. Flowers**)
53. International Symposium on Glaciers and Ice Sheets in a Warming Climate, AK, 25-29 June 2012. Characterization and interpretation of the polythermal structure of two small valley glaciers (N.J. Wilson, **G.E. Flowers**, L. Mingo)
54. European Geosciences Union General Assembly, Vienna, Austria, 22-27 April 2012. Toward more accurate basal boundary conditions: a new 2-D model of distributed and channelized subglacial drainage (M. A. Werder, I. Hewitt, C.G. Schoof, **G.E. Flowers**)
55. European Geosciences Union General Assembly, Vienna, Austria, 22-27 April 2012. Validation of a novel 2-D glacier drainage system model with Gornergletscher's seasonal evolution and lake outbursts (M.A. Werder, I. Hewitt, C.G. Schoof, M. Huss, **G.E. Flowers**)
56. American Geophysical Union Fall Meeting, San Francisco, CA, 5-9 December 2011. A 2D model of channelised and distributed subglacial drainage (M.A. Werder, I. Hewitt, C.G. Schoof, **G.E. Flowers**)
57. American Geophysical Union Fall Meeting, San Francisco, CA, 5-9 December 2011. Glacier melt-model parameter sensitivity and transferability in the dry subarctic environment of the southwest Yukon (A.H. MacDougall, **G.E. Flowers**)
58. American Geophysical Union Fall Meeting, San Francisco, CA, 13-17 December 2010. Glacier melt-model transferability within a small subarctic mountain range: successes and limitations (A.H. MacDougall, **G.E. Flowers**)
59. International Polar Year Oslo Science Conference, Oslo, Norway, 8-12 June 2010. Tidewater glacier response to climate change, Devon Island Ice Cap, Arctic Canada (S. Boon, M. Sharp, J, Kavanaugh, **G. Flowers**. L. Copland, L. Tarasov)
60. European Geosciences Union General Assembly, Vienna, Austria, 2-7 May 2010. Characterizing the dynamics of a slowly surging glacier using a two-dimensional flowband model (**G.E. Flowers**, N. Roux, S. Pimentel)
61. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2009. Transferability of distributed glacier-surface energy-balance models within a small subarctic mountain range (A.H. MacDougall, **G.E. Flowers**)
62. American Geophysical Union Fall Meeting, San Francisco, CA, 14-18 December 2009. Simulating outlet glacier response to drainage events with a hydrologically coupled higher-order flowband model (S. Pimentel, **G.E. Flowers**)
63. Workshop on the dynamics and mass budget of Arctic glaciers / GLACIODYN (IPY) meeting, Kananaskis Country, AB, 16-19 February 2010. Coupling glacial hydrology into a high-order numerical ice model (S. Pimentel, **G.E. Flowers**)
64. American Geophysical Union Fall Meeting, San Francisco, CA, 15-19 December 2008. Coupling glacial hydrology into a high-order numerical ice model (S. Pimentel, **G.E. Flowers**)

65. American Geophysical Union Fall Meeting, San Francisco, CA, 15-19 December. Hydrological modeling of ice-sheet outlet glaciers (**G.E. Flowers**, S. Pimentel)
66. American Geophysical Union Fall Meeting, San Francisco, CA, 15-19 December 2008. Spatially distributed temperature-index melt modelling of glaciers in the Donjek Range, St. Elias Mountains, Yukon Territory (B.A. Wheler, **G.E. Flowers**)
67. American Geophysical Union Fall Meeting, San Francisco, CA, 15-19 December 2008. Basal dynamics of a small surge-type glacier investigated using 1-D geophysical inverse modeling (L. De Paoli, **G.E. Flowers**)
68. Norwegian Hydrological Council on "Hydrology in the Arctic Climate", Longyearbyen, Svalbard,16-18 June 2008. Assessing future melt water intrusions into Svea-Nord mine using multi-component glacier hydrological modelling (T.V. Schuler, **G.E. Flowers**, J.O. Hagen)
69. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 10-14 May 2008. A high-order flow-band ice dynamics model for the Belcher Glacier (S. Pimentel, **G.E. Flowers**)
70. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 10-14 May 2008. Peculiar dynamics of a small valley glacier revealed using 1-D inverse modelling (L. De Paoli, **G.E. Flowers**)
71. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 10-14 May 2008. Temperature-index melt modelling of glaciers in the Donjek Range, St. Elias Mountains, Yukon Territory (B.A. Wheler, **G.E. Flowers**)
72. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 10-14 May 2008. High-resolution regional glacier modelling using NARR data forcing (A.H. Jarosch, F.S. Anslow, **G.E. Flowers**, B.A. Wheler, G.K.C. Clarke)
73. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 10-14 May 2008. Toward a model of basal hydrology for polar glaciers (**G.E. Flowers**)
74. 42nd Canadian Meteorological and Oceanographic Society 2008 Congress, Kelowna, BC, 25-29 May 2008. High-resolution regional glacier modelling using NARR data forcing (F.S. Anslow, A.H. Jarosch, **G.E. Flowers**, B.A. Wheler, G.K.C. Clarke)
75. American Geophysical Union Fall Meeting, San Francisco, CA, 10-14 December 2007. Warm times and cold times during the last 2000 years reconstructed from Icelandic lake and marine sediments. (Á. Geirsdóttir, G.H. Miller, **G.E. Flowers**, S. Ólafsdóttir, K.B. Ólafsdóttir, Y. Axford)
76. Glaciers in Watershed and Global Hydrology, Obergurgl, Austria, 27-31 August 2007. Toward a deterministic model of glacier hydrology for watershed applications (**G.E. Flowers**)
77. Joint Congress of the Canadian Meteorological and Oceanographical Society, the Canadian Geophysical Union and the American Meteorological Society, St. John's, NF, 28 May - 1 June 2007. Glacier-climate relationships in the Donjek Range, St. Elias Mountains, Yukon Territory (B.A. Wheler and **G.E. Flowers**)
78. Joint Congress of the Canadian Meteorological and Oceanographical Society, the Canadian Geophysical Union and the American Meteorological Society, St. John's, NF, 28 May - 1 June 2007. Global warming and polar tidewater glacier response: a Canadian IPY project on Belcher Glacier, Nunavut (S. Boon, D. Burgess, L. Copland, **G. Flowers**, J. Kavanaugh, S. Marshall, M. Sharp, L. Tarasov)

79. Geological Society of America 103rd Annual Meeting, Denver, CO, 4-6 May 2007. Dynamic response of a surge-type glacier to rock avalanche loading (D.H. Shugar, B. Rabus, **G.E. Flowers**, J.J. Clague)
80. American Geophysical Union Fall Meeting, San Francisco, CA, 11-15 December 2006. Thermodynamics of outburst floods: flowpath and heat transfer interactions (**G.E. Flowers**, T.T. Creyts, G.K.C. Clarke)
81. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 14-17 May 2006. The dynamic response of Arctic glaciers to global warming: a Canadian contribution to International Polar Year Project Glaciodyn (IPY 30) (S. Boon, D. Burgess, L. Copland, **G. Flowers**, J. Kavanaugh, S. Marshall, M. Sharp, L. Tarasov)
82. American Geophysical Union Fall Meeting, San Francisco, CA, 5-9 December 2005. Modeling Langjökull ice cap through the Holocene (**G.E. Flowers**, H. Björnsson, S.J. Marshall, G.K.C. Clarke)
83. Annual Scientific Meeting of the Canadian Geophysical Union, Banff, AB, 8–11 May 2005. Holocene history of Langjökull ice cap, central Iceland (**G.E. Flowers**, H. Björnsson, S.J. Marshall, G.K.C. Clarke)

Invited talks and seminars (outside of SFU)

1. Earth and Planetary Sciences, Massachusetts Institute of Technology, Dec 2019
2. Global Water Futures, Women and Water Lecture Series, University of Saskatchewan, April 2019
3. Department of Geosciences, University of Oslo, February 2019
4. Department of Geophysics, Stanford University, January 2019
5. Department of Geoscience, University of Wisconsin–Madison, November 2018
6. Department of Earth and Environmental Sciences, Boston College, November 2018
7. Department of Geological Sciences, University of Oregon, 2016
8. Department of Earth Sciences, Montana State University, April 2016
9. Department of Geology and Geophysics, University of Alaska, Fairbanks, October 2014
10. Earth Science Colloquium, Lamont-Doherty Earth Observatory, October 2014
11. Department of Geosciences, Pennsylvania State University, January 2014
12. Department of Geography, University of British Columbia, February 2014
13. Institute of Earth Sciences, University of Iceland, February 2013
14. Department of Geosciences, University of Oslo, January 2013
15. Institute for Geophysics, University of Texas, November 2012
16. Institute of Arctic and Alpine Research, University of Colorado, November 2012
17. Department of Geological Sciences, University of Colorado, November 2012
18. Department of Geophysics, Stanford University, May 2012
19. Arctic Speaker Series, Arctic Institute of North America, University of Calgary, Feb 2012
20. Earth and Planetary Sciences Division, California Institute of Technology, October 2011
21. Geological Survey of Canada, Pacific (Vancouver) Division, September 2010
22. Laboratory of Hydraulics, Hydrology & Glaciology (VAW), ETH-Zürich, April 2010
23. Earth and Atmospheric Science, City University of New York, November 2009
24. Lamont Doherty Earth Observatory, Columbia University, September 2009
25. Environmental Science and Engineering, California Institute of Technology, April 2009
26. "Topics in Global Change" seminar series, Yale University, April 2008

27. Department of Earth and Space Sciences, University of Washington, February 2008
28. Department of Geography, University of British Columbia, January 2008
29. U.S. NSF Global Land Use Dynamics Program workshop, October 2007
30. School of Earth and Ocean Sciences, University of Victoria, October 2006
31. ASIAQ (Greenland Survey), Nuuk, Greenland, April 2005
32. Department of Physical Geography and Quaternary Geology, Stockholm University, October 2004
33. Department of Earth and Ocean Sciences, University of British Columbia, March 2003
34. Department of Earth and Space Sciences, University of Washington, March 2003

Invited workshops

1. Caltech/Jet Propulsion Laboratory workshop on "Nucleating a New Generation of Earth System Models" (speaker and participant), November 2018
2. Kluane Lake Research Summit (participant), May 2018, May 2019
3. Swiss Nuclear Waste Management Company (NAGRA) workshop (speaker), May 2017
4. Swiss Nuclear Waste Management Company (NAGRA) workshop (co-author) April 2012
5. Polar Climate, Land Ice, Paleo Working Groups, Community Earth System Model (CESM), National Center for Atmospheric Research (NCAR), Boulder, CO (co-author) February, 2012.
6. CESM Land Ice Working Group meeting (speaker), Boulder, CO, 12-13 Jan 2011
7. Swiss Nuclear Waste Management Company (NAGRA) workshop (speaker) 29 April - 1 May 2010
8. U.S. NSF Global Land Use Dynamics Program workshop (speaker), 1–3 October 2007
9. U.S. NSF Arctic System Science Synthesis Retreat (participant), 8–14 August 2004

Supervision of research personnel

Postdoctoral fellows

Laura Thomson	SFU	2016–2018
Leif Anderson	SFU/UIceland (co-advised)	2015–2017
Ofir Harari	SFU Statistics (co-advised)	2015–2016
Adrien Gilbert	SFU	2014–2015
Rolf Sidler	SFU	2013–2014
Mauro Werder	SFU	2010–2013
Sam Pimentel	SFU	2007–2009

Graduate students (senior supervisor)

Andrew Nolan	M.Sc. candidate, SFU	2019–present
Giovanni Corti	M.Sc. candidate, SFU (co-advised)	2019–present
Tryggvi Unnsteinsson	M.Sc. candidate, SFU (co-advised)	2019–present
Erik Young	Ph.D. candidate, SFU	2017–present
Anna Gribbon	M.Sc. candidate, SFU (withdrawn)	2018–2020
David Bigelow	M.Sc., SFU	2016–2019
Jeffrey Crompton	Ph.D. candidate, SFU	2012–2019
Alexandra Pulwicki	M.Sc., SFU	2015–2017
Flavien Beaud	Ph.D., SFU	2011–2017
Lena Schlichting	Ph.D. candidate, SFU (withdrawn)	2013
Nathaniel Wilson	M.Sc., SFU	2010–2012

Lucas Fuhrman	Ph.D. candidate, SFU (withdrawn)	2010–2011
Andrew MacDougall	M.Sc., SFU	2008–2010
Brett Wheler	M.Sc., SFU	2006–2009
Laetitia DePaoli	M.Sc., SFU	2006–2009

Graduate students (committee member)

Christina Draeger	Ph.D. candidate, UBC	2020–present
Meghana Ranganathan	Ph.D. candidate, MIT (EAPS)	2019–present
Tingan Li	Ph.D. candidate, SFU (Geography)	2018–present
Gabriella Racz	Ph.D. candidate, UBC	2017–present
Adrien Damseaux	Ph.D. candidate, SFU (Geography)	2019–2020
Leonora King	Ph.D., UBC	2016–2018
Sonja Surjanovic	M.Sc., SFU (Statistics, co-advised)	2015–2016
Arran Whitford	M.Sc., UBC	2014–2018
Noel Fitzpatrick	Ph.D., UBC	2014–2018
Mekdes Ayalew	M.Sc., UBC	2014–2018
William Armstrong	Ph.D., UColorado	2014–2017
Anna Haiblen	M.Sc., SFU	2014–2017
Craig Miller	Ph.D., SFU	2013–2017
Camilo Rada	Ph.D. candidate, UBC	2012–2018
Kasia Tokarska	M.Sc., SFU (Geography)	2012–2014
Patricia MacQueen	M.Sc., SFU	2012–2013
Bergur Einarsson	Ph.D., UIceland	2011–2018
Marianne Haseloff	Ph.D., UBC	2011–2015
Marc-Andre Brideau	Ph.D., SFU	2006–2010
Daniel Shugar	Ph.D., SFU	2005–2011
Jessica Liggett	M.Sc., SFU	2005–2008
Denny Capps	Ph.D., SFU	2004–2011

Visiting scholars

Clara Steller	B.Sc., Universität Freiburg	Jan–Apr 2020
Coline Ariagno	M.Sc. candidate, Polytechnical Institute of Bordeaux, France	Jan–Jul 2016
Christian Braedstrup	Ph.D., Aarhus University, Denmark	Jan–Apr 2014
Brad Gooch	Ph.D., University Texas	April 2014
Sam Pimentel	PDF, Aberystwyth	Jan 2011–July 2012
Caroline Clason	Ph.D., Aberdeen	Sept 2010–Aug 2011
Pierre Jounieux	M.Sc., École Normale Supérieure, Cachan	May–Aug 2010
Nicolas Roux	M.Sc., École Normale Supérieure, Paris	Mar–Aug 2009

Undergraduate students

Alexi Morin	B.Eng. candidate, ULaval	May–Aug 2020
Rebecca Latto	B.Sc., Columbia University	June–Aug 2019
Anamika Adhikari	B.Sc. candidate, SFU	June–Aug 2019

Nathaniel D'Souza	B.Sc. candidate, SFU	June–Dec 2018
Braden Connal	B.Sc., SFU	May–Aug 2018
Glenn Hall	B.Sc., SFU	May–Aug 2017
Alex Milburn	B.Sc., SFU	May–Dec 2016
Sarah Furney	B.Sc., SFU	Feb–Jul 2016, May 2018
AJ Ward	B.Sc., SFU	Feb–May 2016
Tien Vu	B.A.Sc., SFU	May–Aug 2015
Rita Dubman	B.Sc., SFU	May–Aug 2014
Keith Russell	B.Eng., UBC	May–Aug 2014
Allison Westin	B.Sc., SFU	Oct–Dec 2013
Hazel Wong	B.Sc., SFU	Oct–Dec 2013
Kyle Siemens	B.Sc., UVic	May–Aug 2013
Yuriy Halushchenko	B.Sc., SFU	Sept 2012–Apr 2013
Eric Petersen	B.Sc., SFU	Sept 2011–May 2013
Jackson O'Neill	B.Sc., UBC	Jul–Aug 2012
Benjamin Vautour	B.Sc., SFU	Sept–Dec 2010
Patrick Belliveau	B.Sc., SFU	May 2008–May2010
Jennifer Owen	B.Sc., SFU	Oct 2007–May 2009
Elizabeth Baird	B.Sc., SFU	Sept 2007–May 2008
Chris Doughty	B.Sc., SFU	May–Aug 2006
Jeff Catterall	B.Sc., SFU	Sept 2005–Apr 2006
Qianyong Yu	B.A.Sc., SFU	Sept–Dec 2005

Research assistants

Jonathan Klimesch	High school graduate, Germany	Sept 2015–Jan 2016
Jessica Logher	M.Ed., UVic	summers 2006–2007

External Examiner

Reto Sterchi, M.Sc. thesis, SFU School of Resource and Environmental Management, 2018

Marco Carenzo, Ph.D. thesis, ETH Hönggerberg, Zürich, Switzerland 2012

Basile de Fleurian, Ph.D. thesis, LGGE, CNRS, Université Joseph Fourier, Grenoble, France, 2010

TEACHING

Courses

Year	Position	Department	Number	Course	Type	Enrollment
2011 2015 2017	Instructor	SFU Earth Sciences	EASC 104	Geohazards	Lecture	316 25[§§] 19

[§§] Enrollment capped for courses offered at SFU Harbour Centre

Year	Position	Department	Number	Course	Type	Enrollment
2010	Instructor	SFU Earth Sciences	EASC 207	Applied Geophysics	Lecture and Laboratory	21
2005 2006 2013 2020	Instructor	SFU Earth Sciences	EASC 304	Hydrogeology	Lecture and Laboratory	12–25
2015 2016 2018	Instructor	SFU Earth Sciences	EASC 305	Quantitative Methods for Earth Sciences	Lecture and Laboratory	6–13
2007 2009 2011 2014 2016 2017 2020	Instructor	SFU Earth Sciences	EASC 314	Principles of Glaciology	Lecture and Laboratory	4–8
2008	Instructor	SFU Earth Sciences	EASC 406	Field Geology III	Field School	10
2006 2008 2010 2013 2015 2017 2019	Instructor	SFU Earth Sciences	EASC 605/704	Advanced Glaciology	Graduate	2–5
2009 2010 2011 (x2) 2014 2016 2019 2020 (x2)	Instructor	SFU Earth Sciences	EASC 711	Directed Readings	Graduate	1-4
2000	Instructor	UBC Earth and Ocean Sciences	EOSC 310	Earth and the Solar System	Lecture	175

Year	Position	Department	Number	Course	Type	Enrollment
2016	Invited instructor	Geophysical Institute, University of Alaska, Fairbanks	N/A	International Summer School in Glaciology, McCarthy, Alaska	Graduate	27
2013	Invited instructor	University of Oslo, Department of Geosciences	GEO 9440	Cryosphere modelling	Graduate, Lecture and Laboratory	8
2010	Invited instructor	University of Saskatchewan Centre for Hydrology	GEOG 827	Kananaskis Short Course on Principles of Hydrology	Graduate, Lecture	20
2005 2006 2007 2009 2011 2013 2015 2016 2017	Guest lecturer	SFU Resource and Environmental Management	REM 631	Earth Systems and Global Change in Environmental Management	Graduate	25–40
2006	Guest lecturer	SFU Geography	GEOG 311	Hydrology I	Lecture and Laboratory	20
2005	Guest lecturer	UVic Geography	GEOG 490	Snow and Ice in Watershed Hydrology	Lecture	10

Professional development

2019 Participant, SFU/COMPASS Advanced Communications Workshop
2018-2019 Participant, SFU's Emerging Thought Leaders (ETL) media training workshops
2006 Rethinking Teaching (four-day course development workshop), SFU LIDC
2006– SFU Instructional Skills Workshops (various including voice, speech, large lectures, body language)

Other activities

2007–2008 Faculty mentor for secondary school student

SERVICE

Service to the academic community

Journal Editorships

Scientific Editor, Annals of Glaciology Vol. 61(81), 2019
Scientific Editor, Annals of Glaciology Vol. 60(80), 2019
Scientific Editor, Annals of Glaciology Vol. 60(78), 2018
Scientific Editor, Annals of Glaciology Vol. 57(72), 2016
Chief Editor, Annals of Glaciology Vol. 54(63), 2012
Guest Editor, Hydrological Processes, Special Issue, 2007
Associate Editor, Journal of Geophysical Research—Earth Surface, 2004–2007
Scientific Editor, Annals of Glaciology Vol. 40, 2004

Grant Proposal Review Panels

NSERC – Research Tools and Instruments, 2017
Compute Canada – Resource Allocation Competition, Earth and Environmental Sciences, 2017
NASA – Understanding Changes in High Mountain Asia, 2016
U.S. NSF Office of Polar Programs, Antarctic Glaciology & Geology/Geophysics, 2001, 2003

Site Visit Panels

Center for Remote Sensing of Ice Sheets, University of Kansas, 2006, 2007, 2009. Site evaluation and report on behalf of U.S. National Science Foundation.

Peer Reviewer

Journal articles: 60+ articles for *Annals of Glaciology, Arctic, Antarctic, and Alpine Research, Climate Dynamics, Earth Interactions, Earth Surface Processes and Landforms, Earth System Science Data, Frontiers, Geografiska Annaler, Geology, Geophysical Research Letters, Geoscientific Model Development, Global and Planetary Change, Hydrological Processes, Jökull, Journal of Climate, Journal of Geophysical Research—Atmospheres, Journal of Geophysical Research—Earth Surface, Journal of Glaciology, Journal of Hydrology, Journal of Volcanology and Geothermal Research, Nature, Nature Communications, Nature Geoscience, Northwest Science, Science Advances, Quaternary Science Reviews, Science, The Cryosphere*

Grant applications: 25+ proposals (excluding those evaluated as a NASA/NSF panelist) for Natural Sciences and Engineering Research Council of Canada (Discovery Grants), Canada Research Chairs Program, Canada Foundation for Innovation (Leaders' Opportunity Fund), U.S. National Science Foundation (Arctic Natural Sciences, Antarctic Glaciology, CAREER program, Earth Sciences—Global Change, Polar Postdoctoral Program, Major Research Instrumentation, Geomorphology and Land-Use Dynamics), U.K. Natural Environment Research Council, Swiss National Science Foundation, ETH Zurich Research Commission, Danish Council for Independent Research and Natural Sciences, Chilean National Science and Technology Commission, National Geographic Society

Other reviewer/advisory roles

Appointment to the Board of Reviewing Editors, *Science Magazine*, 2018–present (25+ manuscripts)
Chair, Evaluation Committee, Stan Paterson Scholarship, Canadian Geophysical Union, 2013–
Search Committee Member, Research Scientist, Institute of Earth Sciences, U of Iceland, 2013
External reviewer, 7 tenure and promotion case (undisclosed US/UK universities), 2012–2020
Editorial advisor, *Arctic*, published by the Arctic Institute of North America, 2013–2018
External reviewer, Cambridge University Junior Research Fellowship applicant, 2012

Committee Member

International Association for Cryospheric Sciences (IACS), Division Head (Glaciers), 2019–present
Vice President, International Glaciological Society, 2015–present
Chair, International Glaciological Society Publications Committee, 2018–present
Member, International Glaciological Society Executive Council, 2004–2007, 2009–2012, 2014–2017
Member, International Glaciological Society Publications Committee, 2004–2017
Member, Canadian Geophysical Union Glaciers Committee, 2006

Conference co-convener

Annual Meeting of the Northwest Glaciologists, Vancouver, 18-19 October 2013
International Symposium on Glaciers and Ice Sheets in a Warming Climate, Alaska, 25-29 Jun 2012
Annual Meeting of the Northwest Glaciologists, Vancouver, BC, 23–24 Oct 2009
Representation of glaciers in watershed and global hydrology, Austria, 27–30 August 2007
Conference in honour of Garry Clarke, Vancouver, BC, 8 December 2006

Session Convener/Co-convener/Chair

European Geosciences Union General Assembly, Vienna, Austria, 2020
Canadian Geophysical Union Annual Scientific Meeting (3 sessions), Vancouver, BC, 2017
American Geophysical Union Fall Meeting, San Francisco, CA, 2010, 2011, 2015
Canadian Geophysical Union Annual Scientific Meeting, St. John's, NL, 2007
Canadian Geophysical Union Annual Scientific Meeting, Banff, AB, 2006

Service to SFU

University Committees

2009–2010 University Advisory Committee on Sustainability

Departmental Committees

2020–2021 Member, Tenure and Promotion Committee, Faculty of Environment
2020–2021 Member, Chair's Teaching Schedule Advisory Committee
2019–2021 Chair, Graduate Program Committee
2019–2020 Member, Search Committee for FRBC faculty hire
2019–2020 Member, Tenure and Promotion Committee, Department of Physics
2017–2018 Member, Search Committee for Natural Hazards faculty hire

2015–2018 Chair, Graduate Program Committee
2015–2016 Member, Search Committee for Metamorphic Petrology faculty hire
2014–2015 Member, Tenure and Promotion Committee
2014–2015 Member, Ad-hoc Committee on Field Safety
2013–2014 Member, Tenure and Promotion Committee
2013–2014 Chair, Seminar Series (Fall and Spring)
2010–2011 Member, Equipment Committee
2010–2011 Member, Tenure and Promotion Committee
2009–2015 Member, Graduate Program Committee
2009–2010 Member, Safety Committee
2009 Chair, Seminar Series (Spring)
2007–2009 Member, Tenure and Promotion Committee
2007–2008 Chair, Equipment Committee
2007 Member, Ad-hoc Committee on Academic Restructuring
2006–2007 Member, Equipment Committee
2006 Member, Ad-hoc Committee on Criteria for Promotion and Tenure in Earth Sciences
2005–2006 Member, Undergraduate Curriculum Committee
2005–2006 Member, Space Committee

Speaker

2020 SFU Department of Geography Travelogues
2018 SFU Science Al!ve Saturday camp for grade 1-7 girls
2010 SFU English Bridge Program for students with English as a second language
2010 SFU President's Faculty Lecture Series
2008 SFU–IRMACS Canada Research Chair seminar series
2008 UBC/SFU/UVic graduate recruiting evening for NSERC fields
2008 SFU English Bridge Program for students with English as a second language
2007 SFU Department of Mathematics "Taste of Pi" Saturday seminars for high-school students
2007 SFU Faculty of Science Emeriti Annual Luncheon
2006 SFU Major Entrance Scholarship Reception
2005 SFU Department of Earth Sciences Seminar Series
2005 SFU Department of Physics Seminar Series

SFU Media

2015 SFU Faculty of Science Featured Researcher
2005, 2006 Interviews, SFU News

Other

2008– Faculty Representative, Convocation (occasional)
2007 Departmental Volunteer, SFU Majors' Day
2007 Representative, SFU Major Entrance Scholarship Reception
2006, 2007 Featured Researcher, SFU Annual Research Luncheon

Public outreach, education and media

2020 Interview for print article, *Freelance in Warsaw, Poland* (Apr)
2019 Live radio interview, *CBC The Current* (Nov)
2019 Live radio interview, *Sirius XM* (Nov)
2019 Interview for print article, *CBC News* (Nov)
2019 On-camera interview for film *Finding Solitude,* Vancouver (Aug)
2019 Telephone interviews for *CBC North,* Yellowknife, for web/print and radio (Jan)
2018 Telephone interview for Mountain Life Magazine (Oct)
2018 Television interviews for CBC The National (Aug)
2018 Interview for print article, *WIRED Magazine* (Jun)
2018 Interview contribution to *Inside Science Alert* article on geo-engineering of ice sheets (Mar)
2018 Interview contribution to *Nature's* arts and culture blog (Mar)
2017 Speaker, Rotary Club of Arbutus: "The future of our snow and ice" (Sept)
2017 Host, Café Scientifique: "The Future of Ice" (Mar)
2017 Keynote speaker, Annual BC Parks all-staff Meeting (Jan)
2016 Speaker, Alpine Club of Canada Spearhead Huts Fundraising event (Nov)
2016 Interview for print article, Yukon News (May)
2016 Interview for print article, Polar Continental Shelf Program Science Report (Jan)
2016 SFU Faculty of Science Featured Researcher, on-line article (Jan)
2015 Telephone interview for print article, Innovation Magazine, APEGBC
2015 Interview for INTERACT book volume, Arctic Research Stations (Dec)
2015 On camera interview for climate change documentary, Iceland (June)
2014 Recorded interview, CFI science blog and podcast (May)
2014 "Get Science Right" public forum, Canadian Association of University Teachers (Jan)
2012 Speaker, Science World "Future Science Leaders" program (Nov)
2012 Children's book reviewer, "Leaf and the Long Ice" by Jo Marshall (Sept)
2012 Cafe Scientifique panelist: "Science in Canada's North", Science World (Sept)
2012 Interview, Nature news blog (Canadian High Arctic Research Station)
2012 Magazine interview, Pique ("Sea to Sky" community news magazine)
2011 Speaker, Kluane Lake Research Station 50th anniversary celebration (5-7 Aug)
2011 On-camera interview, Documentary film: "The life and death of glaciers", Duncan Group
2010 Guest speaker, Canadian Rockies Snow and Ice Initiative public lecture, Canmore (Mar)
2010 Newspaper interview, Rocky Mountain Outlook, Canmore, AB (Feb)
2010 Magazine interview, Canadian Geographic, January/February issue
2010 Magazine interview, North of Ordinary (Air North in-flight magazine), winter issue
2009 Radio interview, CBC North (31 Jul)
2008 Magazine interview, L'Express du Pacifique French language magazine (12 May)
2007 Guest speaker, Burke Mountain Naturalists monthly meeting (13 Nov)
2007 Television appearance, "Heads Up!" science program with Bob McDonald (13 Aug)
2007 Television appearance, Discovery Channel (27 Jul)
2007 Radio interview, Australian Broadcasting Corporation Science Show and CBC (28 Apr)
2007 Radio interview, CBC Quirks and Quarks (3 Feb)

2006 Radio guest, CFAX, Victoria, BC (19 Oct)
2005 Newspaper interview, Yukon News (28 Jan)
2005 Radio guest, CFAX, Victoria, BC (25 Jan)