

NATALYA GOMEZ

Department of Earth and Planetary Sciences
McGill University
Montreal, QC, H3A 0E8 Canada
natalya.gomez@mcgill.ca
+1 (514) 398-3885

EDUCATION

2014: **Ph.D.** Earth and Planetary Sciences, Harvard University, Boston, USA

2009: **M.Sc.** Geophysics and Environmental Studies, University of Toronto, Canada

2006: **Honors B.Sc.** Physics Specialist, Math Minor, University of Toronto, Canada

APPOINTMENTS

2015-present: **Canada Research Chair in the Geodynamics of Ice Sheet – Sea Level Interactions**

2015-present: **Assistant Professor**, Earth and Planetary Sciences, McGill University, Canada

2014-2015: **Ed Lorenz Postdoctoral Fellow**, New York University, USA, Center for Atmosphere and Ocean Science, Courant Institute of Mathematical Sciences

RESEARCH INTERESTS

- Ice sheet – sea level – solid earth interactions, ice sheet stability and evolution, paleo and future sea level
- Geophysics, geodesy, earth rheology, glacial isostatic adjustment
- Climate science, paleoclimate
- Numerical modeling, remote sensing
- Coastal change mitigation and adaptation

RESEARCH FUNDING

2015-2020: **Canada Research Chair, Tier II**
Title: “CRC in the Geodynamics of Ice Sheet – Sea Level Interactions”
Role: Principal Investigator

2015-2018: **Canadian Foundation for Innovation John R. Evans Leaders Fund**
Title: “Ice Sheet – Sea Level – Solid Earth Interactions Modeling”
Role: Principal Investigator

2015-2018: **McGill University Start-up Funding**

- 2016-2021: **NSERC Discovery Grant**
Title: “Ice Sheet – Sea Level – Solid Earth Interactions”
Role: Principal Investigator
- 2017-2020: **SSHRC Insight Development Grant**
Title: “Increasing the Adaptive Capacity of Subarctic and Arctic Aboriginal People to Climate and Sea Level Change Using Innovative, Web-Based, Informatics Tools”
Role: Co-investigator (PI: Leonard Tsuji, University of Toronto)
- 2017-2018: **FRQNT New Researchers Grant**
Title: “Using GPS-Reflection to detect sea level change associated with glacier retreat in Greenland”
Role: Principal Investigator
- 2015-2016: **CIHR Grant**
Title: “Increasing the Adaptive Capacity of Subarctic and Arctic Aboriginal People to Environmental Change through Environmental Monitoring, Modelling, and Health Planning: The Use of Innovative, Web-Based, Informatics Tools”
Role: Co-investigator (PI: Leonard Tsuji, University of Toronto)

International:

- 2019-2023 **European Research Council Starting Grant**
Title: “Rates of Interglacial Sea-level Change, and Responses”
Role: Remote-team member (PI: Natasha Barlow, Leads University, UK)
- 2018-2022: **NSF Polar Research Grant**
Title: “Collaborative Research: Investigating Ice Sheet – Solid Earth Feedbacks in West Antarctica: Implications for ice sheet evolution and stability”
Role: International Co-investigator (PI: Terry Wilson, Ohio State University)
- 2018-2020: **Norwegian Research Council Int. Partnerships for Excellent Education and Research**
Title: “Advanced Climate Education and Research (ACER)”
Role: International project partner (leader: Kerim Nisancioglu, University of Bergen, Norway)
Purpose: to run a highly competitive international graduate summer school in climate dynamics (<http://www.uib.no/en/rs/acdc>)

AWARDS and HONOURS

- 2010-2013 NSERC PhD Level Post-Graduate Scholarship
2009-2010 NSERC Master’s Level Post-Graduate Scholarship
2008-2009 University of Toronto Fellowship, University of Toronto
2008-2009 J.R.G. Smyth Scholarship in Physics, University of Toronto

2006	Grant for Collaborative Research, Canadian Institute for Advanced Research
2006	Bryan Statt Award for Experimental Physics, University of Toronto
2002-2003	Ted Mossman Scholarship in Mathematics, University of Toronto
2002-2006	Dean's List Scholar, University of Toronto
2002	University College Entrance Scholarship, University of Toronto

PUBLICATIONS

Note: **Bold underlined** indicates a student/post doc under Gomez's supervision.

Peer-reviewed journal publications:

Powell, E., Gomez, N., Hay, C., & Mitrovica, J.X. Viscous Effects in the Solid Earth Response to modern Antarctic ice mass flux: Implications for geodetic studies of WAIS stability in a warming world. *Journal of Climate* (in review).

1. Gregory, J. M., Griffies, S. M., Hughes, C. W., Lowe, J. A., Church, J. A., Fukimori, I., **Gomez, N.**, Kopp, R. E., Landerer, F., Cozannet, G. L., Ponte, R. M., Stammer, D., Tamisiea, M. E. & Van De Wal, R. S. W. (2019). Concepts and Terminology for Sea Level: Mean, Variability and Change, Both Local and Global. *Surveys in Geophysics*. doi: [10.1007/s10712-019-09525-z](https://doi.org/10.1007/s10712-019-09525-z)
2. Golledge, N. R., Keller, E. D., **Gomez, N.**, Naughten, K. A., Bernales, J., Trusel, L. D., & Edwards, T. L. (2019). Global environmental consequences of twenty-first-century ice-sheet melt. *Nature*, 566(7742), 65-72. doi: [10.1038/s41586-019-0889-9](https://doi.org/10.1038/s41586-019-0889-9)
3. Whitehouse, P. L., **Gomez, N.**, King, M. A., & Wiens, D. A. (2019). Solid Earth change and the evolution of the Antarctic Ice Sheet. *Nature Communications*, 10(1), 503. doi: [10.1038/s41467-018-08068-y](https://doi.org/10.1038/s41467-018-08068-y)
4. Pollard, D., **Gomez, N.**, DeConto, R. M., & **Han, H. K.** (2018). Estimating Modern Elevations of Pliocene Shorelines Using a Coupled Ice Sheet-Earth-Sea Level Model. *Journal of Geophysical Research: Earth Surface*, 123(9), 2279-2291. doi: [10.1029/2018JF004745](https://doi.org/10.1029/2018JF004745)
5. **Chan, N.-H.**, Perron, J. T., Mitrovica, J. X., & **Gomez, N.** (2018). New Evidence of an Ancient Martian Ocean From the Global Distribution of Valley Networks. *Journal of Geophysical Research: Planets*, 123(8), 2138-2150. doi: [10.1029/2018JE005536](https://doi.org/10.1029/2018JE005536)
6. **Gomez, N.**, Latychev, K., & Pollard, D. (2018). A Coupled Ice Sheet–Sea Level Model Incorporating 3D Earth Structure: Variations in Antarctica during the Last Deglacial Retreat. *Journal of Climate*, 31(10), 4041-4054. doi: [10.1175/JCLI-D-17-0352.1](https://doi.org/10.1175/JCLI-D-17-0352.1)
7. **Han, H. K.**, & **Gomez, N.** (2018). The impact of water loading on postglacial decay times in Hudson Bay. *Earth and Planetary Science Letters*, 489, 156-165. doi: [10.1016/j.epsl.2018.02.043](https://doi.org/10.1016/j.epsl.2018.02.043)
8. Wilmes, S.-B., Green, J. A. M., **Gomez, N.**, Rippeth, T. P., & Lau, H. (2017). Global Tidal Impacts of Large-Scale Ice Sheet Collapses. *Journal of Geophysical Research: Oceans*, 122(11), 8354-8370. doi: [10.1002/2017JC013109](https://doi.org/10.1002/2017JC013109)
9. Pollard, D., **Gomez, N.**, & DeConto, R. M. (2017). Variations of the Antarctic Ice Sheet in a Coupled Ice Sheet-Earth-Sea Level Model: Sensitivity to Viscoelastic Earth Properties. *Journal of Geophysical Research: Earth Surface*, 122(11), 2124-2138. doi: [10.1002/2017JF004371](https://doi.org/10.1002/2017JF004371)

10. Hay, C. C., Lau, H. C. P., **Gomez, N.**, Austermann, J., **Powell, E.**, Mitrovica, J. X., Latychev, K., Wiens, D. A. (2016). Sea Level Fingerprints in a Region of Complex Earth Structure: The Case of WAIS. *Journal of Climate*, 30(6), 1881-1892. [doi:10.1175/JCLI-D-16-0388.1](https://doi.org/10.1175/JCLI-D-16-0388.1)
11. Tsuji, L. J. S., Daradich, A., **Gomez, N.**, Hay, C., & Mitrovica, J. X. (2016). Sea Level Change in the Western James Bay Region of Subarctic Ontario: Emergent Land and Implications for Treaty No. 9. *Arctic*, 69(1), 99. [doi:10.14430/arctic4542](https://doi.org/10.14430/arctic4542)
12. **Gomez, N.** (2015). Small glacier has big effect on sea-level rise. *Nature*, 526, 510. [doi:10.1038/526510a](https://doi.org/10.1038/526510a)
13. **Gomez, N.**, Pollard, D., & Holland, D. (2015). Sea-level feedback lowers projections of future Antarctic Ice-Sheet mass loss. *Nature Communications*, 6, 8798. [doi:10.1038/ncomms9798](https://doi.org/10.1038/ncomms9798)
14. **Gomez, N.**, Gregoire, L. J., Mitrovica, J. X., & Payne, A. J. (2015). Laurentide-Cordilleran Ice Sheet saddle collapse as a contribution to meltwater pulse 1A. *Geophysical Research Letters*, 42(10), 3954-3962. [doi:10.1002/2015GL063960](https://doi.org/10.1002/2015GL063960)
15. Hay, C., Mitrovica, J. X., **Gomez, N.**, Creveling, J. R., Austermann, J., & E. Kopp, R. (2014). The sea-level fingerprints of ice-sheet collapse during interglacial periods. *Quaternary Science Reviews*, 87, 60-69. [doi:10.1016/j.quascirev.2013.12.022](https://doi.org/10.1016/j.quascirev.2013.12.022)
16. **Gomez, N.**, Pollard, D., & Mitrovica, J. X. (2013). A 3-D coupled ice sheet – sea level model applied to Antarctica through the last 40 ky. *Earth and Planetary Science Letters*, 384, 88-99. [doi:10.1016/j.epsl.2013.09.042](https://doi.org/10.1016/j.epsl.2013.09.042)
17. **Gomez, N.**, Pollard, D., Mitrovica, J. X., Huybers, P., & Clark, P. U. (2012). Evolution of a coupled marine ice sheet–sea level model. *Journal of Geophysical Research: Earth Surface*, 117(F1). [doi:10.1029/2011JF002128](https://doi.org/10.1029/2011JF002128)
18. Mitrovica, J. X., **Gomez, N.**, Morrow, E., Hay, C., Latychev, K., & Tamisiea, M. E. (2011). On the robustness of predictions of sea level fingerprints. *Geophysical Journal International*, 187(2), 729-742. *Geophysical Journal International*. [doi:10.1111/j.1365-246X.2011.05090.x](https://doi.org/10.1111/j.1365-246X.2011.05090.x)
19. Karagatzides, J. D., Kozlovic, D. R., De Iuliis, G., Liberda, E. N., General, Z., Liedtke, J., McCarthy, D.D., **Gomez, N.**, Metatawabin, D., & Tsuji, L. J. S. (2011). Youth Environmental Science Outreach in the Mushkegowuk Territory of Subarctic Ontario, Canada. *Applied Environmental Education & Communication*, 10(4), 201-210. [doi:10.1080/1533015X.2011.669684](https://doi.org/10.1080/1533015X.2011.669684)
20. **Gomez, N.**, Mitrovica, J. X., Huybers, P., & Clark, P. U. (2010). Sea level as a stabilizing factor for marine-ice-sheet grounding lines. *Nature Geoscience*, 3, 850. [doi:10.1038/ngeo1012](https://doi.org/10.1038/ngeo1012)
21. **Gomez, N.**, Mitrovica, J. X., Tamisiea, M. E., & Clark, P. U. (2010). A new projection of sea level change in response to collapse of marine sectors of the Antarctic Ice Sheet. *Geophysical Journal International*, 180(2), 623-634. [doi:10.1111/j.1365-246X.2009.04419.x](https://doi.org/10.1111/j.1365-246X.2009.04419.x)
22. Mitrovica, J. X., **Gomez, N.**, & Clark, P. U. (2009). The Sea-Level Fingerprint of West Antarctic Collapse. *Science*, 323(5915), 753. [doi:10.1126/science.1166510](https://doi.org/10.1126/science.1166510)
23. Matsuyama, I., Mitrovica, J. X., Daradich, A., & **Gomez, N.** (2010). The rotational stability of a triaxial ice-age Earth. *Journal of Geophysical Research: Solid Earth*, 115(B5). [doi:10.1029/2009JB006564](https://doi.org/10.1029/2009JB006564)
24. Tsuji, L. J. S., **Gomez, N.**, Mitrovica, J. X., & Kendall, R. (2009). Post-Glacial Isostatic Adjustment and Global Warming in Subarctic Canada: Implications for Islands of the James Bay Region. *Arctic*, 62(4), 458-467. [doi:10.14430/arctic176](https://doi.org/10.14430/arctic176)

Other Publications:

Article on climate change published in *The Sandbox: Stories of Sustainability at McGill University*.
“Faculty Feature: Natalya Gomez” (2017)
Published [online](#).

Conference Proceedings (daily highlights and conference statement) from the International WCRP/IOC Conference on Regional Sea Level Changes and Coastal Impacts, Columbia University, New York, NY, USA (July 10-14, 2017). Published [online](#). Gomez was the author of Day 4 highlights and contributed to editing the conference statement.

WCRP Grand Challenge: Regional Sea Level Change and Coastal Impacts Science and Implementation Plan (Version 2.1). Co-authored by the GC Sea Level Steering Team. Working document published [online](#). Gomez led and wrote the implementation plan for Work Package 1 (WP1) of the GC with Mark Tamisiea and Roderik Van de Wal.

Future Geophysical Facilities Required to Address Grand Challenges in Earth Sciences: A community report to the National Science Foundation, Published [online](#). (September 2015).
Report Writing Committee: Rick Aster, Mark Simons, Roland Burgmann, **Natalya Gomez**, Bill Hammond, Steve Holbrook, Estelle Chaussard, Leigh Sterns, Gary Egbert, John Hole, Thorne Lay, Steve McNutt, Michael Oskin, Brandon Schmandt, John Vidale, Lara Wagner, Paul Winberry.

Meredith Langstaff, **Natalya Gomez**. (2012). Intermittent Renewable Electricity: Incentivizing Load Management Technologies in Aruba. 55. Aruban Government, Carbon War Room, Harvard University

PRESENTATIONS

Invited Departmental Seminars:

Gomez has been invited to give seminars at the following institutions:

University of Texas, Austin, USA (April 2019)
California Institute of Technology, Pasadena, CA, USA (April 2019)
University of Massachusetts Amherst, Amherst MA, USA (April 2018)
University of Western Ontario, London, ON, Canada Annual C. Gordon Winder Memorial SCUGOG Public Lecture in Earth Sciences
Washington University, St. Louis, IL, USA (November 2017)
Ottawa University, Ottawa, ON, Canada (October 2017)
Lehigh University, Pennsylvania, USA (March 2017)
Washington University in Seattle, Washington (February 2017)
Physics Department, McGill University, Montreal, Canada (September 2016)
Earth Observatory of Singapore, Singapore (August 2016)
Atmosphere Ocean Sciences Department, McGill University, Montreal, Canada (November 2015)
Geophysics Department Seminar Series, Stanford University, California, USA (October 2015)
IMAU / Utrecht University Colloquium, Netherlands (March 2015)
Department of Geosciences, Princeton University, Princeton, NJ, USA (March, 2014)
National Center for Atmospheric Research (NCAR), Boulder, CO, USA (June 2014)
Nonlinear Studies at Alamos National Laboratory, Los Alamos, NM, USA (October 2011)

Invited Conference Presentations:

International Conference on Paleoceanography in Sydney, Australia (September 1-6, 2019)
Invited talk on the theme of Ice-sheet/ocean interactions: drivers and impacts.

INQUA Meeting in Dublin, Ireland (July 25-31, 2019)

IUGG General Assembly, Montreal, Canada (July 8-18, 2019)

ACDC 10-year anniversary meeting, Norway (March 2019)

PALSEA2 5th workshop: Phasing of ice sheet and sea-level responses to past climate change, Cancun, Mexico (November 6-9, 2017)

Elizabeth and Frederick White Conference on the sensitivity of the Antarctic Ice Sheet to marine climate change: perspectives from the past, Hobart, Australia.

Attended and gave a talk remotely via conferencing (July 5-7, 2017)

International WCRP/IOC Conference on Regional Sea Level Changes and Coastal Impacts, Columbia University, New York, NY, USA (July 10-14, 2017)

“Insights from coupled modelling on ice, sea level and solid Earth changes in Antarctica”

SCAR Open Science Conference, Kuala Lumpur, Malaysia (August 2016)

“The Influence of Earth structure on a coupled ice sheet-sea level model of the Antarctic Ice Sheet”

Earth, Environmental and Planetary Sciences Colloquium, Brown University, Providence, Rhode Island, USA (November 2015)

“Sea level – Ice Sheet – Solid Earth Interactions”

NSF Future Seismic and Geodetic Facility Needs in the Geosciences Workshop, Washington, DC, USA (May 2015)

“Glacial isostatic adjustment and sea level problems and the types of geodetic and seismological data that will be needed”

Mathematics and Climate Research Network Annual Meeting, Chapel Hill, NC (September 2014)

"Sea level - ice sheet interactions"

Princeton University AOS/GFDL Workshop (September 2014)

Princeton, NY

Invited instructor and plenary speaker

American Geophysical Union Fall Meeting (December 9-13, 2013)

San Francisco, California, USA

“The Impact of Gravitationally Self-Consistent Ice Age Sea-Level Variations on the Evolution of the Antarctic Ice Sheet”

CLIVAR WGOMD – SOP Workshop on Sea Level Rise, Ocean/Ice Sheet (February 15-22, 2013)
Interactions and Ice Sheets

Hobart, Australia

“Coupled Ice Sheet – Sea Level Model, Applied to Antarctica through the last 40 ky”

PALSEA workshop on Past, Rapid Changes in Sea Level (August 25-27, 2011)

Harvard University, Cambridge, MA, USA

“Stability and Evolution of a Coupled Ice Sheet - Sea Level Model”

WCRP Workshop on Regional Sea Level Change (February 7-9, 2011)
UNESCO Headquarters in Paris, France
“Sea Level as a Stabilizing Factor for Marine Ice Sheets”

Conference Abstracts:

American Geophysical Union (AGU) Fall Meeting in San Francisco, USA, (December 2018)

“Influence of Northern Hemisphere on Antarctic Deglaciation”

Polar 2018: SCAR/IOC Open Science Conference in Davos, Switzerland (June 19-23, 2018)

“The influence of Northern Hemisphere ice loss on Antarctic ice dynamics during the Last Deglaciation”

American Geophysical Union (AGU) Fall Meeting in San Francisco, USA, (December 2017)

“Interactions of ice sheet evolution, sea level and GIA in a region of complex Earth structure”

Oral Presentation at the American Geophysical Union (AGU) Fall Meeting in San Francisco, USA,
(December 2016)

“The influence of 3-D Earth Structure on a Coupled Antarctic Ice Sheet – Sea Model”

PALSEA2 2016 Workshop: Sea level budgets at decadal to millennial time scales to bridge the paleo and instrumental records. Timberline Lodge, Mount Hood, Oregon. (September 2016)

“Influence of Earth structure on the contribution of the Antarctic ice sheet to sea level change”

WCRP GC Steering Team Meeting on Regional Sea Level Change and Coastal Impacts, Paris, France
(June 2016)

WCRP GC Steering Team Meeting on Regional Sea Level Change and Coastal Impacts, New York
University, New York, NY, USA (February 2016)

“An Integrated Approach to paleo timescale sea level estimates”

2nd Annual PLIOMAX Meeting, Harvard University, Cambridge, MA (January 2016)

“Coupled Ice Sheet – Sea Level Modeling, Applied to Model Antarctic Ice Sheet Retreat”

WCRP GC Steering Team Meeting on Regional Sea Level Change and Coastal Impacts, Utrecht,
Netherlands (March 2015)

“Paleo timescale sea level change”

American Geophysical Union Fall Meeting (December 15-19, 2014)

San Francisco, California, USA

“The Influence of Earth structure on a coupled ice sheet-sea level model of the Antarctic Ice Sheet”

West Antarctic Ice Sheet Initiative (WAIS) Workshop (September 2014)

Julian, CA, USA

"The influence of sea-level changes on ice-sheet evolution in Antarctica"

Center for Sea-Level Change (CSLC) 3rd Annual Workshop, NYU Abu Dhabi (May 2014)

Abu Dhabi, UAE

"Sea level change and ice sheet - sea level interactions"

IAG International Symposium: Reconciling Observations and Models of Elastic and Viscoelastic
Deformation due to Ice Mass Change (May 30-June 2, 2013)

Ilulissat, Greenland

“Coupled Ice Sheet – Sea Level Model, Applied to Antarctica Through the last 40 ky”

American Geophysical Union Fall Meeting (December 3-7, 2012)

San Francisco, California

“Sea Level Predictions of the SeaRISE Ice Sheet Model Simulations”

European Geosciences Union Spring Meeting (April 22-27, 2012)

Vienna, Austria

“Evolution of a Coupled Ice Sheet - Sea Level Model”

American Geophysical Union Fall Meeting (December 5-9, 2011)

San Francisco, California

“Evolution of a Coupled Ice Sheet – Sea Level Model.”

American Geophysical Union Fall Meeting (December 13-17, 2010)

San Francisco, California

“Sea Level as a Stabilizing Factor for Marine Ice Sheets.”

ACDC Summer School on Ice Sheet Ocean Interactions (June 8-19, 2010)

MIT FabLab in Lyngen, Norway

“Sea Level Change and the Stability of Marine Ice Sheets.”

American Geophysical Union Fall Meeting (December 14-18, 2009)

San Francisco, California

“The Sensitivity of Sea-Level Fingerprints to the Geometry of Ice Sheet Mass Balance.”

PUBLIC OUTREACH:

Gomez tweets from [@NatalyaGomezEPS](#) and keeps a monthly activity feed on her website about her life as a scientist and educator, her research group’s activities and shares new findings on climate change and polar science in an accessible way.

Women in STEM and Climate Science Video highlighting her research and her passion for and role in supporting diversity in STEM (2018)

<https://youtu.be/uOwZEwOzZro>

Featured in Educational Video on sea level rise by the California Academy of Sciences (2018)

<https://www.calacademy.org/educators/heating-h2o-the-chemistry-of-sea-level-rise>

Mini-Science 2018: Women in Science @McGill and Beyond (March 2018)

“Earth and Climate Science and Women”

SCUGOG Memorial Public Lecture, Western University, London, Canada (February 2018)

“Ice, Sea Level and the Solid Earth”

On the Podium Speaker Series at the Canada Wide Science Festival, Montreal, Canada (May 2016)

“The Physics of Ice Sheets, Sea Level and the Solid Earth”

Cutting Edge Lectures in Science, McGill Redpath Museum, Montreal, Canada (February 2016)

“Sea Level Change, Ice Sheets and the Solid Earth”

McGill Faculty of Science Meeting (October 2015)
“Ice Sheets and Sea Level Change”

McGill Soup and Science (September 2015)
“Ice Sheets and Sea Level Change”

McGill Space Institute Jamboree (September 2015)
“Sea Level, Ice and the Solid Earth”

SYNERGISTIC ACTIVITIES

Refereeing and editorial work:

Gomez has reviewed papers for the following journals:

Nature

Science

Science Advances

Nature Geoscience

Nature Scientific Reports

Journal of Geophysical Research

Geophysical Research Letters

Geoscientific Model Development

Gomez has also reviewed proposals for NSF and SCAR

International Research Community Activities:

Lecturer at the Advanced Climate Dynamics Course on Hemispheric Asymmetry in Climate in Norway (September 2018)

Expert, Structured Expert Judgement (SEJ) Ice Sheet Elicitation and assessment of the future contribution to sea level rise from ice sheets. Washington, DC, USA (January 2018)

13 experts from across North America were selected to participate in this 2-day long elicitation, funded by Resources for the Future, Rutgers University and Princeton University. Publications based on this assessment may inform the next IPCC report and be used in upcoming global and national assessments and local managers of coastal risk.

Steering Committee Member for the World Climate Research Program (WCRP) “Grand Challenges Sea Level and Coastal Impacts” (2015-2025)

Duties include attending steering committee meetings, collecting research contributions and feedback from the international paleo sea level community, planning conferences, coordinating scientific efforts to address the Grand Challenges on sea level.

Conference organizing committee member for the International WCRP/IOC Conference on Regional Sea Level Changes and Coastal Impacts, held in New York, NY, USA, July 10-14, 2017. Contributed to setting the conference schedule and logistics, invited speaker and session chair invitations and general promotion. Served as a session chair and an invited speaker at the conference. More information can be found at sealevel2017.org

Steering committee member of the “Solid Earth Response and influence on Cryosphere Evolution (SERCE)” Scientific Research Program of SCAR (2016-present)

Workshop Session Chair, International Association of Geodesy (IAG) 1st circular Workshop on Glacial Isostatic Adjustment and Elastic Deformation in Reykjavik, Iceland, September 5-7, 2017.

Full Day Session: “Glacial isostatic adjustment on a heterogeneous Earth: Going beyond 1D Maxwell Earth models”. Wrote the conference abstract solicitation, promoted the conference at AGU Fall Meeting, evaluated abstract submissions, set session schedule and convened session and associated discussions. (Summary and key outcomes available [online](#))

Workshop Presenter and Report Writing Committee for the NSF Future Seismic and Geodetic Facility Needs in the Geosciences (2014-2015)

Duties included soliciting input from the scientific community and presenting a summary of seismic and geodetic facility needs in the sea level and cryosphere research at the workshop, running sessions at the workshop, contributing to the extensive written report following the workshop. The report is available [online](#).

Invited instructor at the Princeton University Atmospheric and Oceanic Sciences workshop on Ice in the Climate System (2014)

Prepared and gave two graduate student workshops, sat on a discussion panel and gave a plenary talk.

McGill University Activities:

- Faculty of Sciences Equity and Working Climate Committee (2018-2019)
- McGill Space Institute Postdoctoral Fellowships Committee (2018-2019)
- Faculty of Science Equipment Competition review committee (2018)
- Poster judge, Faculty of Sciences Undergraduate Research Conference (2016, 2017)
- Research Action Team Member for Vision 2020, McGill’s Sustainability Strategy (2016-present)
 - This involved meeting for an afternoon three times with a team of people from all levels of the university (undergraduate students to Department Chairs) to develop and assess strategies and actions for McGill to become more sustainable.
- Hosted Nature Magazine’s senior editor in the field of climate research for a seminar and visit with the Atmosphere Ocean Sciences, Geography and Earth and Planetary Science Departments.
- Faculty hiring committee for Atmosphere Ocean Sciences Department, McGill University (2016)
- Participated, with my post doc Erik Chan, in a Faculty Student Speed Networking Event
 - Run by the Student Research Initiative club at McGill and gave a student (Katarina Kuhnert) the opportunity to volunteer as a research assistant in my group following the event.
- Ph.D. thesis Defense Committee Member for students in the AOS and Geography Departments
- Participated McGill Space Institute faculty retreat to design vision and mission statements
- Gave a colloquium in the Atmosphere Ocean Sciences and Physics Departments, and participated in the Women in Physics breakfast
- Presenter at McGill Soup and Science

McGill Department of Earth and Planetary Sciences Activities:

- Academic Curriculum Committee (2018, 2019)
- Wares Postdoctoral Fellowships Committee (2018-2019)
- Graduate Admissions Committee (2018, 2019)
- Graduate Scholarship Committee (2018)
- Chair's Advisory Committee (2017-2018)
- Departmental Seminar Organizer (2015-2018)
- EPS Undergraduate recruitment/Outreach Committee (2016-2018)
- Geobiology Faculty Hiring Search Committee (2016-2017)
- Supervised 7 students in independent research/reading courses (2016-2018)
- Served on M.Sc/Ph.D advisory, qualifying exam and defense committees

TEACHING EXPERIENCE

Courses:

Instructor, McGill University, Earth and Planetary Sciences January 2016 - present
EPSC 201 Understanding Planet Earth

An elective course providing an introduction to Earth Science. Enrollment of 200 students

EPSC 510 Geodynamics

Graduate/upper year undergraduate course covering the geodynamics of the Earth's interior and surface at planetary and local scales.

EPSC 550 Cold Earth Science

Graduate/upper year undergraduate course covering interdisciplinary topics related to Earth science in cold regions, co-taught with professors Jeffrey McKenzie and Peter Douglas

EPSC 400 and 700-level independent research and reading courses

Advised individual students in independent studies courses in geodynamical modeling, ice sheet modeling and sea level change.

Teaching Fellow, Harvard University, Earth and Planetary Sciences

E-PSCI 261 Sea Level Change February 2013 – May 2013
Held sections and grade assignments for a graduate level course reviewing sea level theory and applications.

E-PSCI 205 Geophysics: A Primer February 2012 – May 2012
Held office hours and created and graded assignments for a graduate level course reviewing a wide range of topics in geophysics.

SPU 12 Natural Disasters September 2010 – December 2010
Taught sections and labs and graded assignments and exams for an undergraduate general education course analyzing the hazards associated with natural disasters.

Laboratory Teaching Assistant, University of Toronto, Physics September 2008 – May 2009
Demonstrated experiments, graded labs, and taught students in a 2nd year undergraduate physics and engineering lab.

Science Outreach Teacher, University of Waterloo & Peetabeck Academy August 2008
Worked with a team of scientists, teaching young Native Canadians in Fort Albany, Ontario on basic

geophysical processes and presented a talk on the impacts of sea level change on their community and environment. An article about the program was published in the journal *Applied Environmental Education & Communication*.

Student and Postdoc Supervision

Below are listed Gomez's current group members and alumni.

Recent Student Research Highlights:

- Holly Han published her first paper (January 2018)
- David Purnell completed his first successful fieldwork expedition in Greenland (June 2018).
- Katarina Kuhnert won 2nd place for her poster presentation at the McGill Faculty of Science Undergraduate Research Symposium and presented a poster at the Ouranos Symposium (2017).
- Gabriel Tseng was a co-author on 2 abstracts presented at the POLAR2018 Open Science Conference in Davos, Switzerland. (June 2018).
- Anna Mireilla Hayden presented a poster at the POLAR2018 Open Science Conference in Davos Switzerland (June 2018).
- Jake Casselman, who did his undergraduate thesis in the group has continued on to do an MSc at Columbia University (2017) and commenced his PhD in climate science at ETH in Zurich Switzerland in September 2018.

Postdoctoral Fellow (1):

Erik Chan (2016-present, McGill University)

Expertise: Geophysics, planetary deformation and rotational dynamics

Projects: Investigating sea level and ice on Mars, sea level code development and 3-D planetary structure and deformation modeling with applications on Earth and other planetary bodies

Position/award: McGill Space Institute Postdoctoral Fellowship (\$25k/year for 3 years)

Graduate students (4):

Holly Han (Ph.D 2015-present, McGill University)

Research: Glacial Isostatic Adjustment, Ice Sheet Evolution and Sea Level Change

Awards: J.B. Lynch Fellowship, Murata Family fellowship, Differential Fee Waiver - EPS department

David Purnell (Ph.D, September 2017-present, McGill University)

Research: Using GPS-Reflections to study ice loss and sea level change in Greenland and Antarctica

Awards: McGill Space Institute Graduate Student Fellowship, LeRoy Memorial Fellowship

Anna Mireilla Hayden (M.Sc, summer 2017 – present, McGill University)

Research: Climate change-driven changes in sea level and tides in the Hudson Bay, Canada

Graduate Awards: NSERC Post graduate scholarship, Chevron Graduate Award, Reinhardt C. Fellowship (\$1757.00), Grad Excellence Award

Undergraduate awards received while under Gomez's supervision: Dean's Honour List, Osisko Scholarship, Logan Scholarship, NSERC USRA

Ph.D. Co-supervisor: Evelyn Powell (PhD, 2016-present, Harvard University)

Research: 3-D Earth Structure, surface deformation and sea level change in Antarctica

Undergraduate Students (3):

Jeannette Wan Xiu Wen (Undergraduate, 2018-present, Nanyang Technological University, Singapore)

Position: 8-month research project as a CN Yang Scholars Programme award holder

Morgane Flament (Undergraduate, 2018-present, LaSalle University, France)

Position: International undergraduate research trainee

Linda Pan (Undergraduate, 2018-present, Planetary Science Major):

Positions: Summer NSERC-USRA research project, honours Thesis

Alumni (4):

Clovis Vinant-Tang (Undergraduate, 2018, Physics Department, McGill University)

- Physics Research Course Project: Surface water detection and characterization in Antarctica using satellite images and machine learning algorithms
- Current position:

Anna-Mireilla Hayden (Undergraduate, 2016-2017, Earth Systems Science Major):

- Summer NSERC-USRA research project in 2016
- Independent reading course
- Current position: M.Sc student at McGill University under my supervision

Jake Casselman (Undergraduate, 2016-2017, Geology Major):

- Honours thesis project: Global and local sea level projections and coastal adaptation
- MSc at Columbia University (2017) a
- Current position: Ph.D student in climate science at ETH in Zurich Switzerland

Katarina Kuhnert (Undergraduate, 2016-2017, Sustainability, Science and Society Major):

- Volunteer research assistant since late 2016
- Summer NSERC-SURA research project in 2017: Arctic sea level change and community response
- Current position: Summer position with the “Students on Ice” program and working in education with Parks Canada.

Gabriel Tseng (2017-2018, Physics Major):

- Physics Research Course Project: 3-D Sea level and Earth deformation modeling
- Summer Research Assistant funded by SSHRC Insight Development Grant in 2017
- Current position: Software developer in Toronto, Canada

EXPERIENCE

Member of the Harvard Graduate Consortium on Energy and the Environment

January 2012 –December 2014

Taking interdisciplinary courses and attending seminars to gain a broader perspective on issues, consequences and strategies related to the future of energy and the environment.

Energy Policy Analyst for the Government of Aruba

February 2012 – August 2012

Worked with another graduate student to investigate incentivizing electricity load management technologies to deal with the intermittency issues associated with increased renewable wind and solar energy penetration on Aruba. Traveled to Aruba to conduct research and meet with many of the key players in the Energy and Government sectors. Wrote a report for the Aruban Government that will be referenced by the Carbon War Room in a Pathways Document outlining the steps for Aruba to follow to reduce their fossil fuel dependence.

Geophysical Consultant, University of Waterloo

November 2007 – August 2008

Worked with the Department of Environment & Resource Studies to assess the impact of sea level change on shoreline migration and native communities in Northern Canada.

Modeler and Field Assistant, Université de Rennes, France

September 2006 – October 2006

Worked with Prof. Jean Braun in the Geosciences department modeling strain localization in tectonic processes and participated in geology fieldwork in Southern Spain.