

Curriculum Vitae

Pierre St-Laurent
Research scientist
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Academic Appointments

Assistant research scientist, Virginia Institute of Marine Science (VIMS), USA.	2016–Present
Post-doctoral research associate, Virginia Institute of Marine Science (VIMS), USA.	2015
Research scientist, Old Dominion University (ODU), USA.	2017–Present
Post-doctoral research associate, Old Dominion University (ODU), USA.	2010–2016

Academic Background

Ph. D. Oceanography, Université du Québec à Rimouski, Canada	2010
Thesis: Seasonal and interannual variability of freshwaters in Arctic Seas: The case of Hudson Bay	
Advisor: F. Straneo (Scripps Inst. Oceanogr.), F.J. Saucier (deceased); Examiner: S.J. Déry (U. North. Brit. Columb.).	
M. Sc. Oceanography, Université du Québec à Rimouski, Canada	2006
Thesis: Generation and propagation of barotropic waves in Foxe Basin, Hudson Strait, and Hudson Bay	
Advisor: J.-F. Dumais (retired), Examiner: C.J.R. Garrett (retired).	
B. Sc. Physics, Université Laval, Canada	2003

Research Grants

EPA, How will sea level rise impact hypoxia in the Chesapeake Bay? A multiple model intercomparison project,
Role: Co-PI (lead PI: M.A.M. Friedrichs, co-PI: Ming Li, U.Maryland), Oct. 15, 2018 to June 15, 2019, \$66,222.

NSF PLR-1443657, Collaborative research: Investigating the role of mesoscale processes and ice dynamics in carbon and iron fluxes in a changing Amundsen Sea (INSPIRE),
Role: Lead principal investigator, July 15, 2015 to June 30, 2018, \$154,951 to ODU.

NSF XSEDE OCE-160013, Predicted impacts of changing clim. and land-use on Ches.Bay water qual. & biogeochem.
Role: Co-PI (lead PI: M.A.M. Friedrichs), Oct. 1, 2016 to Mar. 31, 2019, \$46,437.84 (944,177 SUs and 20,000 GB).

Contributions to Research

Refereed Publications

Friedrichs, M.A.M., **P. St-Laurent** and 11 other authors (accepted),
Ocean circulation causes strong variability in the Mid-Atlantic Bight nitrogen budget,
J. Geophys. Res. Oceans, <https://doi.org/10.1029/2018JC014424>

Da, F., M.A.M. Friedrichs, **P. St-Laurent** (2018),
Impacts of atmospheric nitrogen deposition and coastal nitrogen fluxes on oxygen concentrations in Chesapeake Bay,
J. Geophys. Res. Oceans, 123, <https://doi.org/10.1029/2018jc014009>

Najjar, R.G., **P. St-Laurent** and 28 other authors (2018),
Carbon budget of tidal wetlands, estuaries, and shelf waters of Eastern North America,
Global Biogeochemical Cycles, 32(3), <https://doi.org/10.1002/2017gb005790>

St-Laurent, P., M.A.M. Friedrichs, R.G. Najjar, D.K. Martins, M. Herrmann, S.K. Miller and J. Wilkin (2017),
Impacts of atmos. nitrogen deposition on surface waters of the western North Atlantic mitigated by multiple feedbacks,
J. Geophys. Res. Oceans, 122(11), p.8406-8426, <https://doi.org/10.1002/2017jc013072>

St-Laurent, P., P.L. Yager, R.M. Sherrell, S.E. Stammerjohn and M.S. Dinniman (2017), Pathways and supply of dissolved iron in the Amundsen Sea (Antarctica), *J. Geophys. Res. Oceans*, 122(9), p.7135-7162, <https://doi.org/10.1002/2017jc013162>

St-Laurent, P., J.M. Klinck, and M.S. Dinniman (2015), Impact of local winter cooling on the melt of Pine Island Glacier, Antarctica, *J. Geophys. Res. Oceans*, 120(10), p.6718-6732, <https://doi.org/10.1002/2015jc010709>

St-Laurent, P., J.M. Klinck, and M.S. Dinniman (2013), On the role of coastal troughs in the circulation of warm Circumpolar Deep Water on Antarctic shelves, *J. Phys. Oceanogr.*, 43(1), p.51-64, <https://doi.org/10.1175/jpo-d-11-0237.1>

St-Laurent, P., F. Straneo, and D.G. Barber (2012), A conceptual model of an Arctic Sea, *J. Geophys. Res. Oceans*, 117, C06010, <https://doi.org/10.1029/2011jc007652>

St-Laurent, P., F. Straneo, J.-F. Dumais, and D.G. Barber (2011), What is the fate of the river waters of Hudson Bay?, *J. Mar. Syst.*, 88, p.352-361, <https://doi.org/10.1016/j.jmarsys.2011.02.004>

Sutherland, D.A., F. Straneo, S.J. Lentz, and **P. St-Laurent** (2011), Observations of fresh, anticyclonic eddies in the Hudson Strait outflow, *J. Mar. Syst.*, 88, p.375-384, <https://doi.org/10.1016/j.jmarsys.2010.12.004>

St-Laurent, P., F.J. Saucier, and J.-F. Dumais (2008), On the modification of tides in a seasonally ice-covered sea, *J. Geophys. Res. Oceans*, 113, C11014, <https://doi.org/10.1029/2007jc004614>

Arbic, B.K., **P. St-Laurent**, G. Sutherland, and C. Garrett (2007), On the resonance and influence of the tides in Ungava Bay and Hudson Strait, *Geophys. Res. Lett.*, 34, L17606, <https://doi.org/10.1029/2007gl030845>

Preprints of first-authored articles are available at <http://nordet.net/>

Non-Refereed Publications

St-Laurent, P., Doc. for the Back of Envelope Ocean Model (beom), <http://nordet.net/beom.html>, 2018.

Yager, P.L., in collab. with P. St-Laurent, R.M. Sherrell, S.E. Stammerjohn and M.S. Dinniman (2017), Exploring the links between melting ice and ecosystems, *Research Features magazine*, issue 121, Dec. 2017.

Twarog, C., P. St-Laurent, E.E. Hofmann, D.L. Dickerson and A.H. Brown (2017), *Ice pumps & Algae* (educational booklet), ISBN 978-0-692-86607-8.

St-Laurent, P., Phytoplankton responses to nutrient enrichment in high and mid-latitude seas, Feature article in *CCPO's Newsletter*, Old Dominion University, vol.21, no 2, Spring 2016.

Datasets Published in Public Repositories

St-Laurent, P., E.E. Hofmann, P.L. Yager, R.M. Sherrell and S.E. Stammerjohn (2017), Numerical model simulating the sea ice and ocean conditions in the Amundsen Sea over the period Jan. 1, 2006 to Dec. 31, 2013 (INSPIRE project). Biological and Chemical Oceanography Data Management Office (BCO-DMO), dataset version 2017-08-30, <http://lod.bco-dmo.org/id/dataset/729546>

St-Laurent, P. and M.A.M. Friedrichs (2017), Numerical simulations of the biogeochemical impact of atmospheric nitrogen deposition on surface waters of the western North Atlantic, dataset, 1.1 terabytes, <https://doi.org/10.21220/V5KB03>

Invited Seminars

Physical drivers of the highly-productive Amundsen Sea Polynya, Antarctica, ODU, OEAS Seminars, Norfolk VA, host: Frederick Dobbs, Apr. 6, 2017.

Effect of atmospheric nitrogen deposition on biological productivity in the Mid-Atlantic Bight, VIMS, Biol. Sci. Seminars, Gloucester Point VA, host: Marjorie Friedrichs, Nov. 30, 2015.

Melt of ice shelves in western Antarctica: Its physical drivers and the effects on the marine environment, VIMS, Phys. Sci. Seminars, Gloucester Point VA, host: Marjorie Friedrichs, Feb. 12, 2015.

Seasonal and spatial variability of glacial meltwater in the Amundsen Sea: Insight from numerical models, Lamont-Doherty Earth Observ. (LDEO), Ocean/Climate Phys. Div., Palisades NY, host: Xiaojun Yuan, May 23, 2014.

Presentations at Professional Meetings and Published Abstracts

See Appendix.

Professional Service

Service to Federal Agencies and Professional Societies

2017, Panelist, NSF, Alexandria VA

2016, Panelist, NSF, Arlington VA

2008–2009, Chair of Rimouski center, Canadian Meteorological & Oceanographic Society (CMOS)

Proposal Reviews

2018 NSF Physical Oceanography Program (2 prop.)

2017 NSF Physical Oceanography Program

2016 NSF Physical Oceanography Program (2 prop.), NSF Antarctic Ocean and Atmospheric Sciences

2015 NSF Physical Oceanography Program

2014 NSF Physical Oceanography Program, NSF Arctic Natural Sciences Program

Manuscript Reviews

2018 Nature Clim.Change, Geophys.Res.Lett., Ocean Modell., J.Geophys.Res.Oceans(3), J.Mar.Syst.(2), J.Phys.Oceanogr.

2017 Journal of Geophysical Research Oceans (5 reviews)

2016 Science, Geophysical Research Letters, Ocean Modelling, Arctic, Journal of Geophysical Research Oceans

2015 Journal of Physical Oceanography, Elementa, Journal of Geophysical Research Oceans

2014 Nature Geosci., Geophys. Res. Lett., J. Phys. Oceanogr., J. Atmos. Ocean. Tech., Ocean Sci., Est. Coast. Shelf Sci.

2013 Journal of Geophysical Research Oceans

2012 Ocean Modelling, Journal of Geophysical Research Oceans, Oceanography

2011 Journal of Physical Oceanography, Atmosphere–Ocean

2008 Atmosphere–Ocean

Memberships of Professional Societies

2018, Member of the American Meteorological Society (AMS), American Geophysical Union (AGU), Coastal and Estuarine Research Federation (CERF), Canadian Meteorological and Oceanographic Society (CMOS).

Juried Shows, Exhibitions and Performances

2014, Judge at Tidewater Science and Engineering Fair, Norfolk VA, March 15, 2014.

2012, Judge at St. Pius X School's Annual Science fair, Norfolk VA, March 13, 2012.

Contributions to Education

Graduate Students Committee Service

Member of advisory committee for *Fei Da* seeking a Ph.D. at the Virginia Institute of Marine Science: “Chesapeake Bay acidification: From daily forecasts to half-century projections”, Major advisor: M.A.M. Friedrichs (VIMS), 2018–Present.

Member of advisory committee for *Fei Da* for his M.Sc. at the Virginia Institute of Marine Science: “Quantifying the effects of long-term changes in atmospheric nitrogen deposition on the Chesapeake Bay water quality”, Major advisor: M.A.M. Friedrichs (VIMS), 2016–2018.

Others

Teaching Assistant, Course OEAS 406/506 “Introduction to MATLAB”, Old Dominion University, 2018,
Course “Coastal and Estuarine Dynamics”, Université du Québec (UQAR), 2006.

Instructor, “Using ROMS–ECB on William & Mary’s High Performance Cluster Chesapeake”.
Virginia Institute of Marine Science (VIMS), Oct. 2,9, 2015.

Lecturer, Summer School Program in Oceanography, Université du Québec (UQAR), 2006–2008.

Field Experience

RVIB N.B. Palmer, 6 weeks, January 2012.

Role: CTD profiling and nutrients sampling in the Ross Sea, Antarctica.

Project: Processes Regulating Iron Supply at the Mesoscale (PRISM), NSF ANT-0944165.

Chief Scientist: D. McGillicuddy (WHOI).

CCGS Pierre Radisson, 2 weeks, September 2006.

Role: CTD profiling and mooring deployment in Hudson Bay, Hudson Strait and Foxe Basin, Canada.

Project: Climate and productivity of the Canadian Inland Seas (MERICA).

Chief Scientist: M. Harvey (DFO-Canada).

R/V Coriolis II, 1 week, May 2005.

Role: CTD tow-yow and in-board ADCP collection over the sill of the Saguenay Fjord, Canada.

Chief Scientist: Y. Simard (UQAR/DFO-Canada).

Synergistic Activities

Software development: *beom*, a model for process-oriented studies (e.g., Zhao et al., JPO, in press) and GFD classes.

Science outreach: Annual Big Blue Camp at ODU, Norfolk VA (June 18-19, 2018; June 26, 2017).

Science outreach: Annual STREAM Expo at St. John the Apostle School, VB VA (May 8, 2018; May 18, 2017).

Invited speaker, Graduate program in International Studies (IS-795/895),
Old Dominion University, Norfolk VA, October 29, 2014.

Speaker at Annual Colloquium for Scientific Vulgarization, Rimouski QC, 2006.

Appendix: Presentations at Professional Meetings and Published Abstracts

- St-Laurent, P., M.A.M. Friedrichs, Y. Xiao, E.E. Hofmann, K. Hyde, A. Mannino, R.G. Najjar, D. Narvaez, S.R. Signorini, H. Tian, J. Wilkin, Y. Yao and J. Xue, 2018, Ocean circulation causes strong variability in Mid-Atlantic Bight net community production, Abstract OS22A-02 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Oliver, H., P. St-Laurent, R.M. Sherrell, P.L. Yager, 2018, Controls on summer phytoplankton blooms in a highly productive Antarctic coastal polynya, Abstract OS34B-06 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Yager, P.L., P. St-Laurent, H. Oliver, R.M. Sherrell, S.E. Stammerjohn, M.S. Dinniman, 2018, High-resolution numerical ocean model illustrates how ice-sheet ocean interactions impact the biological pump of an Antarctic coastal polynya, Abstract C12B-07 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Dinniman, M.S., P. St-Laurent, K.R. Arrigo, E.E. Hofmann, G. van Dijken, 2018, Direct and indirect contributions of the cryosphere to micronutrient supply to the open surface waters around Antarctica, Abstract C21C-0370 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Schwans, E., B.R. Parizek, R.B. Alley, D. Pollard, M. Morlighem, R.T. Walker, T. LaBirt, H. Seroussi and P. St-Laurent, 2018, Ice Sheet System Model (ISSM) studies of controls on stability of Thwaites and Pine Island Glaciers, West Antarctica, Abstract C31C-0515 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Friedrichs, M.A.M., P. St-Laurent, R.G. Najjar, E.H. Shadwick, H. Tian and Y. Yao, 2018, Impacts of changes in watershed nutrient inputs and climate on carbon cycling in Chesapeake Bay, Abstract H11P-0658 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Da, F., M.A.M. Friedrichs, P. St-Laurent, E.H. Shadwick, 2018, Impact of future warming on the Chesapeake Bay carbonate system: Air-sea CO₂ exchange vs. biogeochemical processes, Abstract OS41C-1191 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Hofmann, E.E., J.M. Klinck, E.N. Powell, M.A.M. Friedrichs, P. St-Laurent and H. Tian, 2018, Increased dermo disease in Chesapeake Bay oysters caused by continued warming and nutrient loading, Abstract OS22A-07 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Kim, G., P. St-Laurent, M.A.M. Friedrichs, A. Mannino, 2018, Improved estimates of light in water impacts estuarine biogeochemistry by intensifying stratification in the Chesapeake Bay, Abstract OS23A-07 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Signorini, S.R., A. Mannino, M.A.M. Friedrichs, P. St-Laurent, J. Wilkin, A. Tabatabai, R.G. Najjar, E.E. Hofmann, F. Da, H. Tian and Y. Yao, 2018, Estuarine dissolved organic carbon flux from space: With application to Chesapeake and Delaware Bays, Abstract OS24A-05 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Hinson, K., M.A.M. Friedrichs, G. Bhatt, M. Herrmann, R. Najjar, H. Tian, Y. Yao and P. St-Laurent, 2018, Warmer waters welcome increased nutrient loading: Linking effects of future climate change to Chesapeake Bay hypoxia, Abstract OS41C-1189 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Turner, J.S., M.A.M. Friedrichs, C.T. Friedrichs, P. St-Laurent, 2018, Effects of shoreline erosion and organic matter sinking rates on Chesapeake Bay water clarity, Abstract OS41C-1188 presented at 2018 AGU Fall Meeting, Washington DC, December 10-14, 2018.
- Oliver, H., P. St-Laurent, R.M. Sherrell and P.L. Yager, Controls on marine primary productivity in a coastal polynya receiving large iron inputs from melting West Antarctic ice shelves, presentation at the 2018 WAIS workshop, Stony Point NY, Sep. 16-20, 2018.
- Yager, P.L., P. St-Laurent, H. Oliver, R.M. Sherrell, S.E. Stammerjohn and M.S. Dinniman, Hi-res model illustrates how melting ice impacts coastal carbon cycle, presentation at the the 2018 WAIS workshop, Stony Point NY, Sep. 16-20, 2018.
- Schwans, E., B.R. Parizek, R.B. Alley, D. Pollard, M. Morlighem, H. Seroussi, P. St-Laurent, Bed character of Thwaites Glacier: Implications for stability, presentation at the 2018 WAIS workshop, Stony Point NY, September 16-19, 2018.
- Kim, G., A. Mannino, M.A.M. Friedrichs, P. St-Laurent, S. Preheim, The role of light on biogeochemistry and phytoplankton species composition in the Chesapeake Bay, presentation at the Gordon Research Conference (Ocean Global Change Biology), Waterville Valley NH, July 14-20, 2018.
- St-Laurent, P., M.A.M. Friedrichs, R.G. Najjar, E.H. Shadwick, Changes in Chesapeake Bay air-sea CO₂ fluxes over the past century, presentation at the 2018 Chesapeake Bay Research and Modeling Symposium, Annapolis MD, June 12-14, 2018.

Da, F., M.A.M. Friedrichs, P. St-Laurent, Impacts of direct atmospheric nitrogen deposition and coastal nitrogen fluxes on Chesapeake Bay hypoxia, presentation at the 2018 Chesapeake Bay Research and Modeling Symposium, Annapolis MD, June 12-14, 2018.

Dinniman, M., P. St-Laurent, K. Arrigo, E. Hofmann, J. Klinck, R.M. Sherrell, S. Stammerjohn and P.L. Yager, Ice shelf meltwater pump contribution to vertical exchange around Antarctica, 2018 SCAR/IASC Open Science Conference, Davos, Switzerland, June 15-26, 2018.

Oliver, H., P. St-Laurent, R.M. Sherrell, P.L. Yager, Does light or iron control the Amundsen Sea Polynya phytoplankton bloom?, presentation at the Ocean Carbon and Biogeochemistry Summer Workshop, Woods Hole MA, June 25-28, 2018.

St-Laurent, P., and M.A.M. Friedrichs, Interannual Variability of Lateral Nitrogen and Carbon Fluxes along the Mid-Atlantic Bight, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Da, F., M.A.M. Friedrichs and P. St-Laurent, Impacts of direct atmospheric deposition of nitrogen and continental shelf nitrogen fluxes on Chesapeake Bay hypoxia, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Friedrichs, M.A.M., P. St-Laurent, D.E. Kaufman, F. Da, E.H. Shadwick, R.G. Najjar, Y. Yao and H. Tian, Changes in Chesapeake Bay Carbon Cycling over the Past Century, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Najjar, R.G., M. Herrmann, R. Alexander, E.W. Boyer, D. Burdige, D.E. Butman, W.J. Cai, E.A. Canuel, R.F. Chen, M.A.M. Friedrichs, R.A. Feagin, P.C. Griffith, A. Hinson, J.R. Holmquist, X. Hu, W.M. Kemp, K.D. Kroeger, A. Mannino, S.L. McCallister, W.R. McGillis, M.R. Mulholland, C.H. Pilskaln, J. Salisbury, S.R. Signorini, P. St-Laurent, H. Tian, M. Tzortziou, P. Vlahos, A.Z. Wang and R.C. Zimmerman, Carbon Budget of Tidal Wetlands, Estuaries, and Shelf Waters of Eastern North America, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Signorini, S.R., A. Mannino, M.A.M. Friedrichs, P. St-Laurent and J. Wilkin, Chesapeake Bay Export of Dissolved Organic Carbon from Space-borne Data, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Dinniman, M.S., P. St-Laurent, K.R. Arrigo, E.E. Hofmann, J.M. Klinck, R.M. Sherrell, S.E. Stammerjohn and P.L. Yager, The ice shelf meltwater pump contribution to vertical exchange over the open shelf in the Amundsen Sea and elsewhere around Antarctica, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Oliver, H., P. St-Laurent, R.M. Sherrell and P.L. Yager, What controls the massive phytoplankton bloom in the Amundsen Sea Polynya?, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Sherrell, R.M., P.L. Yager, P. St-Laurent, M.S. Dinniman, S.E. Stammerjohn, M. Lagerstrom and K.M. Harazin, High iron in outflow waters from the Dotson Ice Shelf cavity, Amundsen Sea, West Antarctica: Is glacial meltwater really the source?, presentation at the 2018 Ocean Sciences Meeting, Portland OR, Feb.11-16, 2018.

Schwans, E., B. Parizek, M. Morlighem, R.B. Alley, D. Pollard, R.T. Walker, P. Lin, P. St-Laurent, T. LaBirt and H. Seroussi, Simulating ice dynamics in the Amundsen Sea sector, presentation at the AGU Fall meeting, New Orleans LA, Dec. 11-15, 2017.

Da, F., M.A.M. Friedrichs and P. St-Laurent, Impacts of direct atmospheric nitrogen deposition and coastal nitrogen fluxes on Chesapeake Bay hypoxia, presentation at the CERF meeting, Providence RI, Nov. 5–9, 2017.

St-Laurent, P., M.A.M. Friedrichs, E.H. Shadwick, F. Da, R.G. Najjar and H. Tian, Air-sea CO₂ flux variability in the Chesapeake Bay, presentation at the CERF meeting, Providence RI, Nov. 5–9, 2017.

Yager, P.L., P. St-Laurent, R.M. Sherrell, M.S. Dinniman and S.E. Stammerjohn, ‘Meltwater pump’ mechanism directly links the extreme Amundsen Sea phytoplankton bloom to the melting ice shelf, presentation at the WAIS meeting, Coupeville WA, Oct. 8-11, 2017.

Oliver, H., P. St-Laurent, R.M. Sherrell, P.L. Yager, Physical and biological controls on phytoplankton blooms in the Amundsen Sea Polynya, presentation at the International Goldschmidt Conference, Paris (France), August 13-18, 2017.

Friedrichs, M.A.M., E.H. Shadwick, R.G. Najjar, P. St-Laurent, F. Da and H. Tian, Air-sea CO₂ variability in the Chesapeake Bay, poster presentation at the OCB summer workshop, Woods Hole MA, June 26-29, 2017.

St-Laurent, P. and M.S. Dinniman, Ice shelf melt-driven circulation of the deep layers in the Amundsen Sea, Antarctica, poster presentation at the 31st Forum for Research into Ice Shelf Processes (FRISP) workshop, Bergen (Norway), June 19-22, 2017.

Da, F., M.A.M. Friedrichs and P. St-Laurent, Impacts of direct atmospheric deposition of nitrogen on Chesapeake Bay oxygen and nitrogen cycling, poster presentation at the Gordon Research Conference on Coastal Ocean Dynamics, Biddeford ME, June 11-16, 2017.

Signorini, S.R., A. Mannino, M.A.M. Friedrichs, P. St-Laurent and J. Wilkin, Chesapeake Bay export of dissolved

organic carbon from space-borne data, poster presentation at the International Ocean Colour Science (IOCS)-OCRT meeting, Lisbon (Portugal), May 15-18, 2017.

Dinniman, M.S., P. St-Laurent, E. Hofmann, J.M. Klinck, S. Mack, How the cryosphere may affect iron supply to Antarctic phytoplankton blooms, oral presentation at The Southern Ocean Workshop: Its dynamics, biogeochemistry and role in the climate system, Boulder CO, April 10-13, 2017.

Oliver, H., P. St-Laurent, R.M. Sherrell and P.L. Yager, What makes a bloom in the Amundsen Sea Polynya? A 1-D biogeochemical modeling perspective, Gordon Research Conference on Polar Marine Science, Ventura CA, March 26-31, 2017.

Friedrichs, M.A.M. and P. St-Laurent, Fluxes of carbon and nutrients from upstream landscapes to the coastal ocean, NACP/AmeriFlux Meeting, North Bethesda MD, March 27-30, 2017.

Bernhardt, P.W., M.R. Mulholland, B. Widner, C. Sookhdeo, P. Sedwick, P. St-Laurent, M. Friedrichs, R.G. Najjar, The effect of atmospheric nitrogen deposition on primary productivity and nitrogen uptake along oligotrophic waters of the eastern United States, ASLO Meeting, Honolulu HI, February 26 to March 3, 2017.

St-Laurent, P., M.S. Dinniman, E.E. Hofmann, R.M. Sherrell, S.E. Stammerjohn and P.L. Yager. Variability of physical parameters influencing the bloom of the most productive Antarctic coastal polynya (Amundsen Sea Polynya), 2016 WAIS workshop, Sterling VA, Oct. 3-6, 2016.

Yager, P.L., P. St-Laurent, R.M. Sherrell, H. Oliver, M.S. Dinniman, S.E. Stammerjohn. Melting ice enhances coastal biological productivity, 2016 WAIS workshop, Sterling VA, Oct. 3-6, 2016.

Da, F., M.A.M. Friedrichs, and P. St-Laurent. Impacts of direct atmospheric deposition of nitrogen on Chesapeake Bay hypoxia, ChesMS16, Williamsburg VA, June 1-2, 2016.

St-Laurent, P., M.S. Dinniman, E.E. Hofmann, R. Sherrell, S. Stammerjohn, P. Yager, E. Randall-Goodwin. Transport pathways of nutrients in the Amundsen Sea, Antarctica. AGU-ASLO-TOS Ocean Sciences Meeting, New Orleans LA, February 2016.

Najjar, R.G., P. Sedwick, M. Mulholland, M.A.M. Friedrichs, A. Thompson, D. Martins, P. Bernhardt, M. Herrmann, L. Price, B. Sohst, C. Sookhdeo, P. St-Laurent, B. Widner. Deposition of atmospheric nitrogen to coastal ecosystems (DANCE): A study in seasonally oligotrophic waters off the eastern U.S. AGU-ASLO-TOS Ocean Sciences Meeting, New Orleans LA, February 2016.

Mu, L., P. Yager, P. St-Laurent, M. Dinniman, E. Hofmann, H. Oliver, R. Sherrell, S. Stammerjohn. Investigating the role of mesoscale processes and ice dynamics in carbon and iron fluxes in a changing Amundsen Sea (INSPIRE). AGU-ASLO-TOS Ocean Sciences Meeting, New Orleans LA, February 2016.

St-Laurent, P., M.A.M. Friedrichs, R.G. Najjar, M. Herrmann, 2015. Comparing the impact of atmospheric nitrogen deposition and wind mixing on biological productivity during storm events. Ocean Carbon and Biogeochemistry workshop, Woods Hole, MA, July 2015.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. Dispersion of glacial meltwater by eddies in the Amundsen Sea. AGU-ASLO-TOS Ocean Sciences Meeting, Honolulu HI, February 2014.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. What determines the differences in basal melt between ice shelves in the Amundsen Sea? West Antarctic Ice Sheet (WAIS) workshop, Sterling VA, Sept. 28 to Oct. 2, 2013.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. What determines the differences in basal melt between ice shelves in the Amundsen Sea? Forum for Research in Ice Shelves Processes (FRISP), Powys, Wales, June 17-19, 2013.

St-Laurent, P., J.M. Klinck, M.S. Dinniman, Stable vs. unstable slope currents and cross-shelf exchanges in coastal troughs. Gordon Research Conference on Coastal Ocean Circulation, Biddeford ME, June 9-14, 2013.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. Influence of ocean circulation patterns on ocean heat transport to ice shelves. West Antarctic Ice Sheet (WAIS) workshop, Eatonville WA, September 20-22, 2012.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. Comparing the oceanic heat transport to Antarctic ice shelves for two generic continental shelves. 26th Forum for Research into Ice Shelf Processes (FRISP), Utö Vårdshus, Sweden, June 12-14, 2012.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. Cross-shelf exchanges in Antarctica in the presence of troughs. 2012 International Polar Year (IPY) conference, Montréal Québec, April 23-27, 2012.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. Cross-shelf exchanges induced by troughs. AGU-ASLO-TOS Ocean Sciences Meeting, Salt Lake City UT, February 2012.

Dinniman, M.S., P. St-Laurent, J.M. Klinck, 2011. What controls the time scale of Circumpolar Deep Water intrusions onto Antarctic continental shelves? Oral presentation at the 25th IUGG General Assembly, Melbourne, Australia, June 28 to July 7, 2011.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. On the role of coastal troughs in the transport of heat to ice shelves. 2011 Gordon Research Conference on Coastal Ocean Modeling, Mount Holyoke College MA, June 26-30, 2011.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. On the role of coastal troughs in the transport of ocean heat to ice shelves. IGS-FRISP Meeting, La Jolla CA, June 6-10, 2011.

St-Laurent, P., J.M. Klinck, M.S. Dinniman. Idealized experiments of warm Circumpolar Deep Water intruding over the continental shelf. West Antarctic Ice Shelf (WAIS) workshop, Lake Raystown PA, September 22-25, 2010.

St-Laurent, P., F. Straneo, J.-F. Dumais, D.G. Barber. Storage and release of freshwater in a subarctic basin : The case of Hudson Bay. AGU-ASLO-TOS Ocean Sciences Meeting, Portland OR, Feb. 2010.

St-Laurent, P., F. Straneo, J.-F. Dumais, D.G. Barber. What is the Fate of the Riverine Freshwater of Hudson Bay? Sixth ArcticNet Annual Scientific Meeting, Victoria BC, Canada, Dec. 2009.

St-Laurent, P., F. Straneo, J.-F. Dumais, D.G. Barber. What is the Fate of the Riverine Freshwater of Hudson Bay? Gordon Research Conference on Coastal Ocean Circulation, New-London NH, 2009.

St-Laurent, P., M. Defossez, F.J. Saucier, F. Straneo, S. Senneville, J.-F. Dumais. New observations and numerical simulations of the sea ice-ocean seasonal cycle in Hudson Bay, Foxe Basin and Hudson Strait, Canada. AGU-ASLO-TOS Ocean Sciences Meeting, Honolulu HI, Feb. 2006.