Frédéric Cyr | Ph.D.

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Canadian citizen, born 10 April 1984.
Spoken and written languages: French (mother tongue) and English.
Understand Spanish, Italian and Dutch.
IT skills include Linux, Python, Matlab, LaTeX, HTML.

Education

Université du Québec à Rimouski (UQAR-ISMER) **Rimouski, Canada**
Ph.D. - Oceanography *2009-2014*
Citation of Excellence

Université de Versailles-St-Quentin-en-Yvelines **Saclay, France**
M.Sc. - Climatology *2007-2008*

École Nationale Supérieure de Techniques Avanceée (ENSTA-Paristech) **Paris, France**
M.Sc. - Environmental Engineering *2006-2008*
Combined degree with École Polytechnique de Montréal

École Polytechnique de Montréal **Montréal, Canada**
B.Eng. - Engineering Physics *2004-2008*
Citation of Excellence & International Profile

Work Experience

Research Positions

Fisheries and Oceans Canada, Northwest Atl. Fish. Centre (NAFC) **St. John's, Canada**
Research Scientist *2019-*
Multi-scale physical-biogeochemical interactions in the NW Atlantic ocean
Report ocean climate for the Atlantic Zone Monitoring Program (AZMP)

Fisheries and Oceans Canada, Northwest Atl. Fish. Centre (NAFC) **St. John's, Canada**
Physical Scientist *2017-2019*
Multi-scale physical-biogeochemical interactions in the NW Atlantic ocean
Report ocean climate for the Atlantic Zone Monitoring Program (AZMP)

Mediterranean Institute of Oceanography (MIO) **Marseille, France**
Post-Doctoral research position (European project NeXOS) *2016-2017*
Development of a new glider optical sensor (*MiniFluo-UV*)
Dissolved organic matter dynamics in NW Mediterranean Sea

Royal Netherlands Institute for Sea Research (NIOZ) **Texel, Netherlands**
Post-Doctoral Fellow (FRQNT funded, 2 years) *2014-2015*
Mixing and biogeochemical exchanges caused by internal waves

Fisheries and Oceans Canada, Maurice Lamontagne Institute **Mont-Joli, Canada**
Physical scientist (3-month contract) *2013*
Thermal fronts in Canadian Coastal Waters

Internships, Scientific Appointments and Other Training

Bedford Institute of Oceanography **Darthmouth, Canada**
Training on SeaExplorer glider (1-week course given by Alseamar) *2017*
Training with DFO SeaExplorer gliders

Alseamar-Alcen **Meyreuil, France**
Training on SeaExplorer glider (1-week course) *2016*
Learned how to work with SeaExplorer: Technology, deployment, piloting, maintenance, etc.

Leibniz Institute for Baltic Sea Research, Warnemünde (IOW) **Warnemünde, Germany**
Internal wave mixing in the Baltic Sea (5-week IOW grant) *2015*
Work on data from a scientific cruise in collaboration with the NIOZ

Air-Sea Interaction Laboratory, University of Delaware **Lewes (DE), USA**
Air-flow separation over wind waves (3-month FRQNT grant) *2012*
Built a platform to perform Particle Image Velocimetry (PIV) at sea
Assisted PhD student M. Buckley in conducting PIV experiments above wind waves

Université Laval **Québec, Canada**
Coupled modeling ocean-ice-biology in the Canadian Arctic (4-month) *2008*
Implemented ice-ridging scheme in numerical hydrodynamic model
Performed particle-release simulations for *off-line* coupling with Individual-Based Model

Lab. de Glaciologie et Géophysique de l'Environnement **Grenoble, France**
Surface melting in Antarctica (2-month) *2007*
Detected surface melting events from remote sensing microwave observations
Compared observed melting events and results from 1D/3D models of Antarctica

Teaching

Cégep de Rimouski **Rimouski, Canada**
Teacher (college level) *2011-2012*
W-2012: 982-003-50 - Science and Technology of the Environment (23 students)
W-2011: 203-221-RK - General Physics (27 students)

Université du Québec à Rimouski **Rimouski, Canada**
Lecturer *2010*
F-2010: MAT10309 - Calculus I (2 students)

Université du Québec à Rimouski **Rimouski, Canada**
Teaching Assistant *2010*
F-2010: Responsible for mathematics free revision periods (Engineering department)
W-2010: Responsible for mathematics free revision periods (Engineering department)
W-2010: SCE11106 - Mathematics Knowledge (15 students)

École Polyvalente des Iles **Iles de la Madeleine, Canada**
High-school Teacher (3-month) *2009*

Regular teacher in mathematics
Frequent substitute teacher in other classes

Academic Services

Training HQP

PhD committee member, Fernando Sobral, Dalhousie University (Halifax) Since 2019
High-resolution numerical modeling of the Labrador shelf (preliminary title)

Postdoc advisor, Olivia Gibb, DFO-NAFC (St. John's) Since 2018
Ocean acidification and biogeochemical changes in the Atlantic Zone (18-month)

Postdoc advisor, Ali Moridnejad, DFO-NAFC (St. John's) 2018
Recent ocean conditions changes on Newfoundland and Labrador shelves (3-month)

Internship supervisor, Rémi Chassagne (Undergraduate) 2015
Internal tides generation by topographically-trapped waves (3-month)

Internship co-supervisor, Camil Hamel (Undergraduate), ISMER-UQAR (Rimouski) 2011
Turbulent nitrate fluxes in the Amundsen Gulf, part II (4-month)

Internship co-supervisor, Camil Hamel (Undergraduate), ISMER-UQAR (Rimouski) 2010
Turbulent nitrate fluxes in the Amundsen Gulf, part I (4-month)

Examiner roles

MSc external examiner, Nicolai von Oppeln-Bronikowski, MUN (St. John's) 2019
Glider-Based O_2 and CO_2 Observations in the Labrador Sea

MSc external examiner, Jean-Luc Shaw, ISMER-UQAR (Rimouski) 2019
Hydrodynamique de la Baie de Sept-Iles

Editorial role

Associate Editor Since 2018
Frontiers in Marine Science - Physical Oceanography.

Funded Research

DFO glider proposal **~$30K (*in-kind*)**
Variability of the circulation on the Newfoundland shelf *2019*
Lead PI

Multi-partner Oil Spill Research Initiative (MPRI) Research Proposal **$1.38M**
Oil spill reconnaissance through robotic autonomous underwater vehicle *2018-2022*
Advisor on Lewis et al.

DFO ACCASP proposal **$143K**
Recent changes in the biogeochemistry of Northwest Atlantic water masses *2018-2020*
Lead PI

Ocean Frontier Institute Seed Fund Proposal **$14.3K**
Monitor Placentia Bay for hydrocarbons using underwater gliders *2018-2019*
Collaborator on Lewis et al.

INSU 2018 - *Océan-Atmosphère* Section **∼$11.5K)**
Lagrangian observations of deep ocean circulation in the NW Atlantic *2018-2019*
Collaborator on Desbruyeres et al.

SOCIB glider proposal **∼$3.5K (*in-kind*)**
Ship time and facility use during Pre-SWOT campaign *2018*
co-PI with A. Doglioli

DFO glider proposal **∼$10K (*in-kind*)**
Variability of the Inner Labrador Current on the Newfoundland and Labrador shelf *2018*
Lead PI

DFO ACCASP proposal **$27K**
Northwest Atlantic water masses biochemical modifications in a changing climate *2018*
Lead PI

FRQNT Postdoctoral Fellowship **$63.3K**
Internal waves and vertical exchanges in the ocean *2014-2015*
Main applicant

FRQNT Doctoral Research Scholarship **$60K**
Turbulent mixing in the lower St. Lawrence Estuary *2009-2012*
Main applicant

Scholarships and Awards

Grants, fellowships, etc.

Mourou/Strickland Mobility Program (∼$2000) 2019

IOW visiting grant ($2,790) 2015

FRQNT Postdoctoral Fellowship ($63,333) 2014-2016

FRQNT International Internship Award ($6,700) 2012

UQAR Foundation grant ($1,500) 2012

FRQNT Doctoral Research Scholarship ($60,000) 2009-2012

Madeli-Aide Foundation, Excellence Scholarship ($2,500) 2007

Grandes-Écoles Scholarship ($9,000) 2006-2008
École Polytechnique de Montréal / ENSTA-Paristech combined degree

Desjardins Foundation grant ($1,000) 2005

Other Awards

Giovanni Image Hall of Fame Distinction by NASA-GSFC (2017 class) 2018
A collection of outstanding figures using NASA Giovanni Portal data

Québec-Science Magazine, among 10 discoveries of the year 2014
Bourgault et al. (2014), *Environ. Res. Lett.*, 9, 054001.

Best-Talk Award, Québec-Océan Annual General Meeting, Rivière-du-Loup 2013

Congress Support, Rockland Scientific International 2011
Registration fees, Warnemünde Turbulence Days, Germany

Best-Talk Award, Québec-Océan Annual General Meeting, Lac Delage 2010

Contributions to Research

Field Work

2018: Glider deployment in the Mediterranean Sea (Chief Scientist on glider deployment)
14-day deployment during French-Spanish campaign Pre-SWOT (3-15 May, PIs: A. Pascual & A. D'Ovidio)
Multidisciplinary horizontal fine-scales measurements
Hydrocarbon concentrations in the Mediterranean Sea

2017: Atlantic Zone Monitoring Program, Fall Survey (Chief Scientist: S. Lewis)
20-day cruise on board Furgro Discovery (8 - 28 July)

2017: Multidisciplinary study centered around turbulence, Fortune Bay (co-leaded with S. Donnet)
5-day campaign near St. Pierre and Miquelon archipelago on small fishing boat (4-8 September)
Microstructure profiler, bioacoustics and optical measurements
Field trip in support of IFREMER campaign with R/V Antea (Chief Scientist: P. Lazure)

2017: Atlantic Zone Monitoring Program, Spring Survey (Chief Scientist: E. Colbourne)
17-day cruise on board CCGS Teleost (6 - 23 April)

2017: Atlantic Zone Monitoring Program, Summer Survey (Chief Scientist: S. Lewis)
20-day cruise on board CCGS Teleost (8 - 28 July)

2016: Glider deployment in the North Sea (Chief Scientist)
Monitoring dissolved hydrocarbons in proximity of Statoil's Troll field (12 Nov. - 3 Dec.)
7-day cruise on board Norwegian supply vessel Havila Troll
14-day glider deployment

2016: 2 glider benchmark experiments (1-day each) (Chief Scientist & Glider Pilot)
in situ calibration of optical sensor by comparison with water samples (July & October)

2016: 10-day glider deployment in the NW-Mediterranean (Chief Scientist & Glider Pilot)
Dissolved organic matter dynamics accross the Northern Current (July-August)

2016: 21-day glider deployment in the NW-Mediterranean (Chief Scientist & Glider Pilot)
Survey of the Ligurian Sea to track an oil spill that occurred near Genoa on 23 April 2016

2016: 2-day cruise on the Mediterranean aboard R/V Tethys II (Chief Scientist: Julien Fenouil)
In situ tests with the Moving Vessel Profiler (MVP) in the Ligurian Sea

2016: 19-day glider deployment in the Gulf of Lion, NW-Mediterranean (Chief Scientist)
Dissolved organic matter dynamics between Marseille metropolitan area and offshore waters
Deployment also in support of the SeaQUEST campaign (Chief Scientist: O. Ross)

2015: 10-day OSCAHR campaign (Chief Scientist: A. Doglioli)
Observing Submesoscale Coupling At High Resolution (OSCAHR), NW Mediterranean
Was the ground-based scientist in charge of glider operations

2014: 11-day cruise aboard R/V Pelagia (Chief Scientist: H. van Haren)
3D-mooring deployment at Mount Josephine, North Atlantic near Portugal

2014: 4-day field experiment in the Delaware Bay (Chief Scientist: M. Buckley)
In situ measurements of the air-flow above wind waves from Particle Image Velocimetry (PIV)

2013: 4-day cruise in the Gulf of St. Lawrence aboard R/V Coriolis II (Chief Scientist: U. Neumeier)
Recovery and re-deployments of 4 moorings

2013: 2-week campaign sampling internal waves in Saguenay Fjord (Chief Scientist: D. Bourgault)
Deployment and recovery of a mooring from small boat
Daily sampling (ADCP, CTD and time-lapse photography)

2012: Field experiment in the St. Lawrence Estuary (Chief Scientist)
3 opportunistic sorties (July-August)
Over-wintering mooring recovery in the St. Lawrence Estuary

2012: 2-day field experiment in the Delaware Bay (Chief Scientist: M. Buckley)
In situ measurements of the air-flow above wind waves from Particle Image Velocimetry (PIV)
2011: Field experiment in the St. Lawrence Estuary (Chief Scientist)
18 opportunistic sorties (May-November)
Deployment and recovery of two moorings and deployment of an over-wintering mooring
Realization of a two-week experiment with two boats and a 5 people crew (7 sorties)
2011: Field experiment in the Saguenay Fjord (Chief Scientist: D. Bourgault)
Deployment of a mooring and CTD transect along the Fjord
2010: Field experiment in the St. Lawrence Estuary (Chief Scientist)
14 opportunistic sorties (May-October)
Two-week experiment with two boats and a 6 people crew for simultaneous sampling (10 sorties)
2009: Field experiment in the St. Lawrence Estuary (Chief Scientist)
6 opportunistic sorties (July-August)
Realization of a sampling experiment at the head of the Laurentian Channel (4 days)

Peer-Reviewed Publications

2019: d'Ovidio, F., A. Pascual, J. Wang, A. Doglioli, J. Zhao, S. Moreau, G. Gregory, S. Swaart, S. Speich, F. Cyr, B. Legresy, Y.Chao, L. Fu, & R. A. Morrow, Frontiers in fine scale in-situ studies: opportunities during the SWOT fast sampling phase, *Frontiers in Marine Science*, 10.3389/fmars.2019.00168.

2019: Cyr, F., M. Tedetti, F. Besson, N. Bhairy & M. Goutx, A new glider-compatible fluorometer for the detection of polycyclic aromatic hydrocarbons in the marine environment, *Frontiers in Marine Science*, 10.3389/fmars.2019.00110.

2017: Cyr, F., M. Tedetti, F. Besson, L. Beguery, A. M. Doglioli, A. A. Petrenko and M. Goutx, A new glider-compatible optical sensor for dissolved organic matter measurements: test case from the NW Mediterranean Sea, *Frontiers in Marine Science*, 4(89) 10.3389/fmars.2017.00089.

2016: Dufour, K., F. Maps, S. Plourde, P. Joly and F. Cyr, Impacts of intraguild predation on Arctic copepod communities, *Frontiers in Marine Science*, 3(185) 10.3389/fmars.2016.00185.

2016: van Haren, H., A. A. Cimatoribus, F. Cyr and L. Gostiaux, Insights from a 3-D temperature sensors mooring on stratified ocean turbulence, *Geophysical Research Letters*, 43(9), 4483-4489, 10.1002/2016GL068032.

2016: Cyr, F., H. van Haren, F. Mienis, G. Duineveld and D. Bourgault, On the influence of cold-water coral mound size on flow hydrodynamics, and vice-versa, *Geophysical Research Letters*, 43(2), 775-783, doi:10.1002/2015GL067038.

2016: Cyr, F. and H. van Haren, Observations of small-scale secondary instabilities during the shoaling of internal bores on a deep-ocean slope, *Journal of Physical Oceanography*, 46(1), 219-231, doi:10.1175/JPO-D-15-0059.1.

2015: Bourgault, D. and F. Cyr, Hypoxia in the St. Lawrence Estuary: How a Coding Error Led to Believe that "Physics Controls Spatial Patterns", *PLOS ONE*, 10(9):e0138858, doi:10.1371/journal.pone.0138858.

2015: Cyr, F., D. Bourgault, P. S. Galbraith and M. Gosselin, Turbulent nitrate fluxes in a large-scale estuary, *Journal of Geophysical Research-Oceans*, 120, 2308-2330, doi:10.1002/2014JC010272.

2015: Cyr, F., D. Bourgault and P. S. Galbraith, Behavior and mixing of a cold intermediate layer above a sloping boundary, *Ocean Dynamics*, 65(3), p.357-374, doi:10.1007/s10236-014-0799-1.

2015: Cyr, F. and P. Larouche, Thermal front atlas of Canadian coastal waters, *Atmosphere-Ocean*, 53(2) doi:10.1080/07055900.2014.986710.

2014: Bourgault, D., F. Cyr, D. Dumont and A. Carter, Numerical simulations of the spread of floating passive tracer released at the Old Harry prospect, *Environmental Research Letters*, 9, 054001.

2012: Bourgault, D., F. Cyr, P. S. Galbraith and E. Pelletier, Relative importance of pelagic and sediment respiration in causing hypoxia in a deep estuary, *Journal of Geophysical Research*, 117, C08033.

2011: Cyr, F., D. Bourgault, and P. S. Galbraith, Interior versus boundary mixing of a cold intermediate layer, *Journal of Geophysical Research*, 116, C12029.

2011: Bourgault D., C. Hamel, F. Cyr, J.-É. Tremblay, P. Galbraith, D. Dumont and Y. Gratton, Turbulent nitrate fluxes in the Amundsen Gulf during ice-covered conditions, *Geophysical Research Letters*, 38, L15602.

Theses and Technical Reports

2014: Cyr, F, *Mélange turbulent dans l'estuaire maritime du Saint-Laurent*, Ph.D. thesis, Université du Québec à Rimouski, 201 pp., Rimouski, Canada.

2008: Cyr, F, *Modélisation couplée océan-glace-biologie dans l'Arctique Canadien*, M.Sc. report, ENSTA-Paristech / Université de Versailles-St-Quentin-en-Yvelines, 44 pp., Paris, France.

2007: Cyr, F, *Fontes estivales en Antarctique: Comparaison entre observations et modèles météorologiques*, research report, Laboratoire de Glaciologie et Géophysique de l'Environnement, 30 pp., Grenoble, France.

Selected Conferences and Abstracts

2018: Cyr, F., J. Holden, E. Colbourne and P. Pepin, Newfoundland and Labrador waters: monitoring a crossroads of the world ocean circulation (ID:302915), Ocean Sciences Meeting, Portland, USA (Poster).

2018: Cyr, F., M. Tedetti and M. Goutx, A new glider fluorescence sensor for monitoring dissolved aromatic hydrocarbons near offshore or industrial installations (ID:316607), Ocean Sciences Meeting, Portland, USA (Poster).

2018: E. van der Lee, F. Cyr, M. Buckley, L. Umlauf and H. van Haren, Observations of high-frequency internal wave generation by Langmuir circulation (ID:305507) Ocean Sciences Meeting, Portland, USA (Poster).

2017: Cyr, F., E. van der Lee, M. Buckley, A. Cimatoribus, H. van Haren, C. Lappe and L. Umlauf, High-resolution observations of wind-driven mixing in the Baltic Sea, The 49^{th} Liège Colloquium on Ocean Dynamics and 8^{th} Warnemünde Turbulence Days. Marine Turbulence Re3-visited, Liège, Belgium (Talk).

2017: Cyr, F., M. Tedetti and M. Goutx, MiniFluo fluorescence sensor, advances in FDOM Ocean Measurements, European Geosciences Union (EGU) Annual General Meeting, Vienna, Austria (Poster).

2016: Cyr, F., M. Tedetti and M. Goutx, Dissolved organic matter dynamics in the NW Mediterranean from a new glider optical sensor, The 7^{th} EGO conference on autonomous ocean gliders and their applications, Southampthon, U.K. (Talk).

2016: Cyr, F. , M. Goutx, N. Bhairy, M. Tedetti, F. Besson, M. Mery, A. Petrenko and A.M. Doglioli, Submesoscale dynamics of dissolved organic matter across the Northern Mediterranean Current revealed from a new glider-mounted optical sensor, The 48^{th} International Liege Colloquium on Ocean Dynamics. Submesoscale Processes: Mechanisms, Implications And New Frontiers, Liège, Belgium (Poster).

2016: Doglioli, A.M., G. Grégori, M. Thyssen, T. Wagener, P. Marrec, G. Rougier, N. Bhairy, J. Fenouil, A. de Verneil, L. Rousselet, F. Cyr, A. A. Petrenko, J.-M. André, L. Berline, F. d'Ovidio, A. Pietri, F. Nencioli, L. Jullion, C. Pinazo, C. Yohia, P. Marsalaix, Mapping the planktonic community across submesoscale physical features: the 2015 OSCAHR cruise in the NW Mediterranean, The 48^{th} International Liege Colloquium on Ocean Dynamics. Submesoscale Processes: Mechanisms, Implications And New Frontiers, Liège, Belgium (Talk).

2016: Cimatoribus, A, L. Gostiaux, F. Cyr and H. van Haren, NIOZ high-resolution moored temperature observations: benefits and new challenges, European Geosciences Union (EGU) Annual General Meeting, Vienna, Austria (Talk).

2015: Chassagne, R., F. Cyr, L. Maas, A. Cimatoribus, H. van Haren and D. Bourgault, On the fate of topographically-trapped internal tides, NewWave: New challenges in internal wave dynamics, Lyon, France (Talk).

2015: Cyr F., H. van Haren and D. Bourgault, Internal tides breaking and mixing efficiency over a deep-ocean sloping topography, 7th Warnemünde Turbulence Days, Insel Vilm, Germany (Talk).

2015: Cyr F. and H. van Haren, High-frequency internal-wave observations in the Baltic Sea, European Geosciences Union (EGU) Annual General Meeting, Vienna, Austria (Poster).

2015: Cyr F. and H. van Haren, On the efficiency of mixing above a deep sloping topography, European Geosciences Union (EGU) Annual General Meeting, Vienna, Austria (Talk).

2015: Cyr F. and H. van Haren, On the efficiency of turbulent mixing in the ocean: observations above a deep sloping topography, Turbulent mixing in stratified fluids - Symposium 567 of the European Mechanics Society, Cambridge, U.K. (Talk).

2014: Cyr F. and P. Larouche, Physical-biological relationships evaluated using remote sensing in the Hudson Bay complex, ArcticNet Annual Scientific Meeting, Ottawa, Canada (Poster).

2014: Cyr, F., D. Bourgault, P. S. Galbraith and M. Gosselin, Turbulent nitrate fluxes in a large-scale estuary, European Geosciences Union (EGU) Annual General Meeting, Vienna, Austria (Poster).

2013: Cyr F. and P. Larouche, A sea surface temperature fronts climatology of Baffin Bay, ArcticNet Annual Scientific Meeting, Halifax, Canada (Poster).

2013: Cyr, F., D. Bourgault, P. S. Galbraith and M. Gosselin, *Quantifier la "pompe à nutriments" du Saint-Laurent*, Québec-Océan Annual General Meeting, Rivière-du-Loup, Canada (Talk).

2013: Cyr F. and D. Bourgault, *Old Harry I: Compte rendu et revue critique des évaluations environnementales*, 81e congrès de l'ACFAS, Québec, Canada (Talk).

2013: Bourgault D. and F. Cyr, *Old Harry II: Résultats de simulations de la dispersion de déversement de polluants*, 81e congrès de l'ACFAS, Québec, Canada (Talk).

Other Non-Refereed contributions

2017: Cyr, F., *A new glider-compatible optical sensor for dissolved organic matter measurements* (Seminar), 27 October 2017, Northwest Atl. Fish. Centre, St. John's (NL), Canada.

2017: Cyr, F., *On possible partnerships with Fisheries and Oceans Canada* (Invited talk), 14

September 2017, PLOCAN, Gran Canaria, Spain.

2017: Cyr, F., *Un duo capteur optique et planeur sous-marin pour une nouvelle génération de mesure in situ de la matière organique dissoute* (Seminar), 23 January 2017, Mediterranean Institute of Oceanography, Marseille, France.

2017: Cyr, F., Rockall Bank: Funky ocean physics, deep ocean mixing and cold water coral biogeochemistry (TRR 181 conference), 12 January 2017, University of Hamburg, Hamburg, Germany.

2017: Cyr, F., Presentation of a new glider-compatible optical sensor for measurements of fluorescent dissolved organic matter (Seminar), 11 January 2017, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany.

2017: Cyr, F., Rockall Bank: Funky ocean physics, deep ocean mixing and cold water coral biogeochemistry (Seminar), 11 January 2017, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany.

2016: Cyr, F., On trapped internal tides, deep ocean mixing and cold water coral biogeochemistry (Seminar), 23 August 2016, Laboratoire d'océanographie physique et spatiale, Brest, France.

2016: Cyr, F., Rockall Bank: where funky ocean's physics matters for the biogeochemistry, and vice-versa (Seminar), 19 January 2016, Northwest Atl. Fish. Centre, St. John's (NL), Canada.

2015: Cyr, F., Rockall Bank: a place with funky tides, where the biogeochemistry matters for the physics, and vice-versa (NIOZ Colloquium), 22 September 2015, Royal Netherlands Institute for Sea Research (NIOZ), Texel, Netherlands.

2014: Cyr, F., *Mélange turbulent dans l'estuaire maritime du Saint-Laurent* (Ph.D. defense), 27 March 2014, Institut des Sciences de la Mer, Université du Québec à Rimouski, Rimouski, Canada.

2014: Cyr, F., *Mélange turbulent dans l'estuaire maritime du Saint-Laurent* (Seminar), 24 March 2014, Université Laval, Québec, Canada.

2014: Cyr, F., Turbulent mixing in the Lower St. Lawrence Estuary (Seminar), 11 March 2014, Royal Netherlands Institute for Sea Research, 't Horntje, Netherlands.

2014: Bourgault, D., D. Dumont, F. Cyr and A. Carter (2014), Oil and gas exploitation in the Gulf of St. Lawrence: what role for government and university researchers?, CMOS Bulletin, 42 (1), 28-32.

2014: Bourgault D., F. Cyr, P. S. Galbraith and É. Pelletier, Hypoxia in the St. Lawrence Estuary, Québec-Océan Bulletin, 11, 1-2.

2013: Cyr, F., *L'érosion de la couche intermédiaire froide: mélange aux frontières, marées internes et pompe à nutriments* (Seminar), 25 October 2013, Institut des Sciences de la Mer, Université du Québec à Rimouski, Rimouski, Canada.

2013: Cyr, F. and D. Bourgault, *Old Harry: Petite revue critique des évaluations environnementales et nouvelles simulations de dispersion d'un traceur passif* (joint seminar with D. Bourgault), 8 May 2013, Université Laval, Québec, Canada.

2013: Cyr, F. and D. Bourgault, *Old Harry: Petite revue critique des évaluations environnementales et nouvelles simulations de dispersion d'un traceur passif* (joint seminar with D. Bourgault), Midis des sciences naturelles, 24 April 2013, Université du Québec à Rimouski, Rimouski, Canada.

Contributions related to DFO mandate

2018: Cyr, F. & NAFC Oceanography Section, Physical Oceanographic Environment on the NL Shelf in 2017, AZMP annual meeting, 20-23 March, Montreal, Canada (Talk).

2018: Cyr, F., A. Moridnejad & P. Pepin, Recent changes in Newfoundland and Labrador waters I: A dive into 7 decades of oceanic observations, AZMP annual meeting, 20-23 March, Montreal, Canada (Talk).

2018: Moridnejad, A., F. Cyr & P. Pepin, Recent changes in Newfoundland and Labrador waters II: On the low frequency variability of the NW Atlantic, AZMP annual meeting, 20-23 March, Montreal, Canada (Talk).

Archived Data and Software development

2016: Contributed to the SOCIB Glider Toolbox by adding the SeaExplorer glider case.

2014: All turbulence profiles from my PhD (1762) were processed and submitted for archiving in the Ocean Data Management System (ODMS) on the St. Lawrence Global Observatory (SLGO) portal. I have developed the archiving format since this type of data was new for the ODMS/SLGO.

2009-2014: Developed a *Matlab* library to process data from Vertical Microstructure Profilers (VMP)

Selected Media Appearances

2014: TV journalists help scientists confirm oil-spill model, EnvironmentalResearchWeb.org (IOP Publishing community website)

2014: Oceanography study examines risks of Old Harry development, *The Telegram* (Newspaper)

2014: Lessons from the whales, *Western Star* (Newspaper, open letter)

2014: *Une marée noire dans le golfe risquerait de frapper les îles de la Madeleine*, *Le Devoir* (Newspaper)

2014: *Un déversement à Old Harry menacerait tout l'est du golfe*, *Le Soleil* (Newspaper)

2013: *Info-Réveil*, Radio-Canada (Radio interview, 2013-05-07)

2013: *Old Harry: des simulations de déversement jugées trop optimistes*, *Le Soleil* (Newspaper)

2013: *Radio-Canada cet après-midi*, Radio-Canada (Radio interview, 2013-05-06)

2013: *Pourquoi l'eau de baignade est-elle si froide à Rimouski?*, *UQAR-Info* (Newsletter)