# 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

Citation of Excellence & International Profile

2004-2008

# **Work Experience**

Research Scientist

Research Positions.... Fisheries and Oceans Canada, Northwest Atl. Fish. Centre (NAFC) St. John's, Canada

Multi-scale physical-biogeochemical interactions in the NW Atlantic ocean

Report environmental conditions 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 environmental conditions for the Atlantic Zone Monitoring Program (AZMP)

Mediterranean Institute of Oceanography (MIO)

Marseille, France

Post-Doctoral research position (European project NeXOS)

Development of a new glider optical sensor (MiniFluo-UV)

2016-2017

2019-

Dissolved organic matter dynamics in NW Mediterranean Sea

Frédéric Cyr 1 / 9 September 19, 2019 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 (PC-2, 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 2011-2012 Teacher (college level) 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** lles de la Madeleine, Canada High-school Teacher (3-month) 2009

# Grants, Scholarships and Awards

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Research proposals.	
DFO ACCASP proposal (\$143K; pending, LOI sucessful)	2018
Recent changes in the biogeochemistry of Northwest Atlantic water masses	
SOCIB-glider proposal (In-kind; sucessful)	2018
Ship time and facility use during Pre-SWOT campaign (co-PI with A. Doglioli)	
DFO ACCASP proposal (\$27K; sucessful)	2017
Northwest Atlantic water masses biochemical modifications in a changing climate	
Grants, fellowships, etc.	
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 Bourgault et al. (2014), <i>Environ. Res. Lett.</i> , 9, 054001.	2014
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

# **Research Experience**

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, Pls: 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)

Training Highly Qualified Personnel	
Ali Moridnejad (Post-doc), supervisor	2018
Recent ocean conditions changes on Newfoundland and Labrador shelves (3-month)	
Rémi Chassagne (Undergraduate), internship supervisor	2015
Internal tides generation by topographically-trapped waves (3-month)	
Camil Hamel (Undergraduate), internship co-supervisor with D. Bourgault	2011
Turbulent nitrate fluxes in the Amundsen Gulf, part II (4-month)	
Camil Hamel (Undergraduate), internship co-supervisor with D. Bourgault	2010
Turbulent nitrate fluxes in the Amundsen Gulf, part I (4-month)	

### Contributions to Research

Refereed Publications

**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<sup>th</sup> 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<sup>th</sup> International Liege Colloquium on Ocean Dynamics. Submesoscale Processes: Mechanisms, Implications And New Frontiers, Liège, Belgium (Talk).
- : 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).
- : 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).
- : 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).
- : 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).
- : 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).
- : 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).
- : Cyr F. and P. Larouche, Physical-biological relationships evaluated using remote sensing in the Hudson Bay complex, ArcticNet Annual Scientific Meeting, Ottawa, Canada (Poster).
- : 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).
- : Cyr F. and P. Larouche, A sea surface temperature fronts climatology of Baffin Bay, ArcticNet Annual Scientific Meeting, Halifax, Canada (Poster).
- : 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).
- : Cyr F. and D. Bourgault, *Old Harry I: Compte rendu et revue critique des évaluations environnementales*, 81e congrès de l'ACFAS, Québec, Canada (Talk).
- : 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.....

: 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.
- : 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.
- : Cyr, F., Presentation of a new glider-compatible optical sensor for measurements of fluorescent dissolved organic matter (Seminar), 11 January 2017, Helmholtz-Zentrum Geesthacht, Germany.
- : Cyr, F., Rockall Bank: Funky ocean physics, deep ocean mixing and cold water coral biogeochemistry (Seminar), 11 January 2017, Helmholtz-Zentrum Geesthacht, Geesthacht, Germany.
- : 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.
- : 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.
- : Cyr, F., *Mélange turbulent dans l'estuaire maritime du Saint-Laurent* (Seminar), 24 March 2014, Université Laval, Québec, Canada.
- : Cyr, F., Turbulent mixing in the Lower St. Lawrence Estuary (Seminar), 11 March 2014, Royal Netherlands Institute for Sea Research, 't Horntje, Netherlands.
- : 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.
- : Bourgault D., F. Cyr, P. S. Galbraith and É. Pelletier, Hypoxia in the St. Lawrence Estuary, Québec-Océan Bulletin, 11, 1-2.
- : 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.
- : 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.
- : 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

: 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)