

# Dan Weaver

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## EDUCATION

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- 2012 - present     **Ph.D.**, Dept. of Physics, School of the Environment collaborative program in Environmental Studies  
University of Toronto
- Thesis:            *Exploring the Arctic atmosphere using mid-infrared FTIR measurements at PEARL*  
Supervisor:      Prof. Kimberly Strong
- 2011 - 2012        **Master of Science**, Physics  
University of Toronto
- Thesis:            *Intercomparison of water vapour measurements at Eureka, Nunavut*  
Supervisor:      Prof. Kimberly Strong
- 2009 - 2010        **Bachelor of Education**, Intermediate/Senior  
Teachables: Physics & Civics  
Ontario Studies in Education (OISE), University of Toronto
- 2003 - 2007        **Bachelor of Science**, Astronomy & Astrophysics, Political Science,  
University of Toronto

## PROFESSIONAL CERTIFICATION

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- 2010 – Present     Teacher, Ontario College of Teachers (OCT)
- 2016 – Present     Professional Physicist, Canadian Association of Physicists

## AWARDS

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### *Research excellence and leadership*

April 2015            **George Burwash Langford Award**, School of the Environment,  
University of Toronto

### *Scientific research and communication*

November 2012    **Best student presentation**, CANDAC/CREATE annual workshop,  
Toronto, Ontario, Canada

July 2012            **Best research poster**, CREATE Summer School in Arctic  
Atmospheric Science, Nottawasaga, Ontario, Canada

### *Funding*

2015-2016    E. F. Burton Fellowship (\$11,500)  
2014-2015    R.A. Blyth Fellowship (\$11,000)  
2013-2014    University of Toronto Fellowship (\$11,000)  
2012-2013    University of Toronto Fellowship (\$10,000)  
2011-2012    University of Toronto Fellowship (\$10,000)

### *Travel*

2016            Centre for Global Change Science (CGCS),  
Graduate Student Research Award (\$4500)  
  
2012            University of Toronto School of Graduate Studies (SGS),  
Conference Grant (\$770)

### *Fieldwork*

2015-2016    Northern Scientific Training Program (\$2900)  
2014-2015    Northern Scientific Training Program (\$2900)  
2013-2014    Northern Scientific Training Program (\$3400)  
2012-2013    Northern Scientific Training Program (\$3000)

## RESEARCH EXPERIENCE

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2011 - present **Graduate Student**, Department of Physics, University of Toronto

- Analyzed data from several instruments located at Eureka, Nunavut to determine the reliability and accuracy of new atmospheric water vapour measurement techniques in the High Arctic.
- Investigated the accuracy of new data from the TCCON and MUSICA measurement networks to assess their ability to contribute to studies of climate and atmospheric dynamics using water isotopologues.
- Contributed to the validation analysis of multiple satellite datasets (e.g. Atmospheric Chemistry Experiment, GOSAT).
- Working on validation and comparison of new Community Earth System Model (CESM) water vapour products using FTIR network data.
- Developed macro codes to support remote operation of PEARL FTIR.

2014 (fall) **Volunteer Research Assistant**, Dept. of Physics, University of Toronto

- Contributed to the design and implementation of undergraduate education research, investigating the ideal organization of students into groups by skill level (study led by Prof. Harlow and Prof. Harrison).

2010 - 2011 **Research Assistant**, Department of Physics, University of Toronto

- Operated and maintained instruments the Toronto Atmospheric Observatory (TAO), including daily measurements of urban pollutants and greenhouse gases using an ABB DA8 Fourier Transform Spectrometer.
- Analyzed OSIRIS satellite data using MATLAB for use in research, conference presentations, and reports.
- Researched and facilitated construction of two new heliostat (sun tracking) instruments.

## FIELD CAMPAIGNS

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Feb.25 – Mar.18 2015    **Canadian Arctic ACE/OSIRIS Validation Campaign**  
Polar Environment Atmospheric Research Laboratory (PEARL)  
Eureka, Nunavut, Canada

- **Led campaign team communications**, e.g. wrote daily emails summarizing research progress and challenges to stakeholders and collaborators, updated campaign website.
- Wrote “Guide to being the ACE campaign webmaster” document to support future campaign communications.
- **Posted campaign highlights to social media accounts** (@CREATEarcticsci on Twitter and Instagram) for public outreach, resulting in direct engagement (e.g. retweets, link clicks) with hundreds of people and reaching over 37,000 accounts.
- **Operated Bruker IFS 125HR**, a high-resolution Fourier transform spectrometer, to acquire solar absorption measurements of the atmospheric gases, contributing to global observation networks (e.g. Network for Detection of Atmospheric Composition Change) as well as ACE and OSIRIS satellite validation.
- Performed 125HR maintenance and calibration, repaired source chiller.
- **Installed and set up new computer** to run the 125HR instrument.
- Improved OPUS macro codes to run measurements with greater efficiency and to report measurement successes through on-screen monitoring and email summaries.
- Operated suntracker, tested auto-iris adjustment function.
- **Successfully tested lunar measurements**, using the 125HR and the recently-installed suntracker.
- **Trained new graduate student** for 125HR operations.
- Wrote substantial updates 125HR Standard Operating Procedure (SOP) documents
- **Demonstrated resilient personal and professional character** by working in a highly remote and harsh environment with a small team for over 3 weeks.
- Contributed to annual campaign report and presentations to Canadian Space Agency.

Feb.26 – Mar.18 **Canadian Arctic ACE/OSIRIS Validation Campaign**  
2014 Polar Environment Atmospheric Research Laboratory (PEARL)  
Eureka, Nunavut, Canada

- **Operated the Portable Atmospheric Research Interferometric Spectrometer** for the Infrared (PARIS-IR), the terrestrial version of the ACE-FTS, the high-resolution FTS on board SCISAT.
- **Operated and tested a newly-installed suntracker**, including testing of active tracking mode, dome control, and remote operation (e.g. Halifax, Toronto, Eureka).
- **Assisted with operation of Bruker IFS 125HR**, a high-resolution Fourier transform spectrometer, to acquire solar absorption measurements of the atmospheric gases, contributing to global observation networks (e.g. NDACC, TCCON) as well as ACE and OSIRIS satellite validation.
- **Led research team communications**, including writing daily emails to stakeholders and collaborators and updating campaign website with daily stories about fieldwork and photos.
- **Wrote 5-part article series about the campaign for U of T News**
- Posted campaign highlights to social media accounts (@CREATEarcticsci on Twitter and Instagram) for public engagement.
- **Demonstrated resilient personal and professional character** by working in a highly remote and harsh environment with a small team for over 3 weeks.
- Contributed to annual campaign report to Canadian Space Agency

Feb.24 – Mar.18 **Canadian Arctic ACE/OSIRIS Validation Campaign**  
2013 Polar Environment Atmospheric Research Laboratory (PEARL)  
Eureka, Nunavut, Canada

- **Operated Bruker IFS 125HR**, a high-resolution Fourier transform spectrometer, to acquire solar absorption measurements of the atmospheric gases, contributing to global observation networks (e.g. NDACC, TCCON) and ACE and OSIRIS satellite validation.
- Performed 125HR maintenance and calibration, installed new source chiller.
- **Led research team communications**, including writing daily emails to stakeholders and collaborators and updating website with stories, instrument status updates, and photos.
- **Posted campaign highlights to social media accounts** (@CREATEarcticsci on Twitter) for public engagement
- **Demonstrated resilient personal and professional character** by working in a highly remote and harsh environment with a small team for over 3 weeks.
- Contributed to annual campaign report to Canadian Space Agency

Feb.21 – Mar.12 **Canadian Arctic ACE/OSIRIS Validation Campaign**  
2012 Polar Environment Atmospheric Research Laboratory (PEARL)  
Eureka, Nunavut, Canada

- **Assisted with operation of Bruker IFS 125HR**, a high-resolution Fourier transform spectrometer; acquired solar absorption measurements of the atmospheric gases, contributing to global observation networks (e.g. NDACC, TCCON) as well as ACE and OSIRIS satellite validation.
- Assisted with 125HR maintenance and calibration tests.
- **Led research team communications**, including writing daily emails to stakeholders and collaborators and updating website with stories, instrument status updates, and photos.
- **Demonstrated resilient personal and professional character** by working in a highly remote and harsh environment with a small team for over 3 weeks.

## CONFERENCE PRESENTATIONS

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(presenter underlined)

D. Weaver, K. Strong, M. Schneider, N. Deutscher. TCCON and MUSICA water vapour intercomparison. IRWG workshop, Toronto, Canada, June 2015.

D. Weaver, K. Strong, M. Schneider, N. Deutscher, T. Blumenstock, J. Robinson, J. Notholt, V. Sherlock, D.W.T. Griffith, S. Barthlott, O.E. García, M. Palm, N. Jones, F. Hase, R. Kivi, Y. González, E. Sepúlveda, M. Gisi, T. Warneke, S. Dohe, R. Kohlhepp, A. Wiegeler, E. Christner, B. Lejeune, and P. Demoulin. Intercomparison of MUSICA and TCCON water vapour products. AGU Fall Meeting, San Francisco, United States, December 2014. (poster)

D. Weaver, K. Strong, M. Schneider, K.A. Walker, T. Uttal, N. O'Neill, C.T. McElroy, C. Sioris, Z. Mariani, P.M. Rowe, V.P. Walden, H. Vömel. Intercomparison of atmospheric water vapour measurements in the High Arctic. NSERC CREATE-AAS Research Symposium, Toronto, Canada. April 2014.

S. Conway, D. Weaver, J. Mendonca, C. Viatte, E. Lutsch, A. Pugliese, K. Strong. Eureka Site Report. IRWG meeting, Bad Sulza, Germany, May 2014.

D. Weaver, K. Strong, M. Schneider, K.A. Walker, T. Uttal, N. O'Neill, C.T. McElroy, C. Sioris, Z. Mariani, P.M. Rowe, V.P. Walden, H. Vömel. Expanding our understanding of atmospheric water vapour in the High Arctic. ArcticNet Meeting, Halifax, Canada, December 2013.

Debora Griffin, **D. Weaver**, Kaley Walker, Kimberly Strong, Felicia Kolonjari, Rodica Lindenmaier, Lin Dan, Gloria Manney, Chris Boone, Peter Bernath, James R. Drummond. Investigating the stratosphere of the High Arctic using three Fourier transform spectrometers: instrument intercomparison and validation between 2011 and 2013. ArcticNet Meeting, Halifax, Canada, December 2013.

**D. Weaver**, K. Strong, M. Schneider, T. Uttal, N. O'Neill, C.T. McElroy, C. Sioris, K.A. Walker. Intercomparison of water vapour measurements at Eureka, IRWG Meeting, Abashiri, Japan, June 2013.

**K. Strong**, O. Colebatch, S. Conway, P.F. Fogal, D. Griffin, D.B.A. Jones, Z. Mariani, J. Mendonca, M. Semelhago, I. Stanevich, C. Viatte, K.A. Walker, **D. Weaver**, C. Whaley, R. Lindenmaier, H. Fast, R. Mittermeier, J.R. Drummond, J. Franklin, J.G. Giroux, and J.C. Lin. Probing Atmospheric Composition over Canada using Ground-based FTIR Spectroscopy. Optical Society of America Fourier Transform Spectroscopy (OSA-FTS) Meeting, Arlington, Virginia, USA, 23-27 June 2013. In Imaging and Applied Optics (Optical Society of America, Washington, DC, 2013), FTh2C.1. Invited talk.

**D. Weaver**, K. Strong, M. Schneider, T. Uttal, C. Perro, T. Duck, A. Moss, E. McCullough, R.J. Sica, N. O'Neill, C.T. McElroy, C. Sioris, K. Strawbridge, K.A. Walker. Intercomparison of water vapour measurements at Eureka, IRWG Meeting, Wengen, Switzerland, June 2012.

**C. Whaley**, K. Strong, D. Jones, **D. Weaver**. Ground-based FTIR Measurements and Modeling of Tropospheric Trace Gases Over Toronto. Imaging and Applied Optics Technical Digest. Signal Recovery and synthesis, July 10, 2011, Toronto, Canada.

**C. Adams**, A. Fraser, K. Strong, C. McLinden, J. Mendonca, J.-H. Park, **D. Weaver**, X. Zhao, R. Lindenmaier, R. Batchelor, F. Goutail, A. Pazmino, K. Walker, J.R. Drummond, K. Chance, T. Kurosu, R. Schofield, P. Bernath, C. Boone, C.T. McElroy, D. Deigenstein, V. Umlenski, G. Manney, and W. Daffer. Highlights of UV-visible measurements at PEARL, CANDAC Workshop and CREATE Symposium, Halifax, Canada, Nov 1 2010.

**C. Adams**, K. Strong, R. Lindenmaier, R. Batchelor, J.-H. Park, **D. Weaver**, A. Fraser, J. Mendonca, J. R. Drummond, F. Goutail, A. Pazmino, K.A. Walker, P. Bernath, C. Boone, C.T. McElroy, D. Degenstein, C.A. McLinden, G. Manney and W. Daffer. Intercomparison of ground-based and satellite NO<sub>2</sub> measurements above Eureka, Nunavut, ACE/OSIRIS Joint Meeting, Toronto, Canada, Oct 26 2010.

## PUBLICATIONS

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**D. Weaver**, K. Strong, M. Schneider, P.M. Rowe, C. Sioris, K.A. Walker, Z. Mariani, T. Uttal, C.T. McElroy, H. Vömel, A. Spassiani, and J.R. Drummond: Intercomparison of water vapour measurements in the Canadian high Arctic, *Atmos. Meas. Tech. Discuss.*, doi:10.5194/amt-2016-330, in review, 2016.

Griffin, D., Walker, K. A., Conway, S., Kolonjari, F., Strong, K., Batchelor, R., Boone, C. D., Dan, L., Drummond, J. R., Fogal, P. F., Fu, D., Lindenmaier, R., Manney, G. L., and **Weaver, D.**: Multi-year comparisons of ground-based and space-borne Fourier Transform Spectrometers in the high Arctic between 2006 and 2013, *Atmos. Meas. Tech. Discuss.*, doi:10.5194/amt-2016-272, in review, 2016.

S. Barthlott, M. Schneider, F. Hase, A. Wiegeler, E. Christner, Y. Gonzalez, T. Blumenstock, S. Dohe, O.E. Garcia, E. Sepulveda, K. Strong, J. Mendonca, **D. Weaver**, M. Palm, N.M. Deutscher, T. Warneke, J. Notholt, B. Lejeune, E. Mahieu, N. Jones, D.W.T. Griffith, V.A. Velasco, D. Smale, J. Robinson, R. Kivi, P. Heikkinen, and U. Raffalski. Using XCO<sub>2</sub> retrievals for assessing the long-term consistency of NDACC/FTIR data sets. *Atmos. Meas. Tech.*, 8, 1555-1573, 2015.

E. Sepúlveda, M. Schneider, F. Hase, S. Barthlott, D. Dubravica, O. E. García, A. Gomez-Pelaez, Y. González, J. C. Guerra, M. Gis, R. Kohlhepp, S. Dohe, T. Blumenstock, K. Strong, **D. Weaver**, M. Palm, A. Sadeghi, N. M. Deutscher, T. Warneke, J. Notholt, N. Jones, D. W. T. Griffith, D. Smale, G. W. Brailsford, J. Robinson, F. Meinhardt, M. Steinbacher, T. Aalto, and D. Worthy. Tropospheric CH<sub>4</sub> signals as observed by NDACC FTIR at globally distributed sites and comparison to GAW surface in-situ measurements, *Atmos. Meas. Tech.*, 7, 2337-2360, 2014.

D. Griffin, K. A. Walker, J. E. Franklin, M. Parrington, C. Whaley, J. Hopper, J. R. Drummond, P. I. Palmer, K. Strong, T. J. Duck, I. Abboud, P. F. Bernath, C. Clerbaux, P.-F. Coheur, K. R. Curry, L. Dan, E. Hyer, J. Kliever, G. Lesins, A. Saha, K. Terezschuk, M. Maurice, and **D. Weaver**. Investigation of CO, C<sub>2</sub>H<sub>6</sub> and aerosols in a boreal fire plume over Eastern Canada during BORTAS 2011 using ground- and satellite-based observations, and model simulations. *Atmos. Chem. Phys.*, 13, 10227-10241, 2013.

P.I. Palmer, M. Parrington, J.D. Lee, A.C. Lewis, A.R. Rickard, P.F. Bernath, T.J. Duck, D.L. Waugh, D.W. Tarasick, S. Andrews, E. Aruffo, L.J. Bailey, E. Barrett, S.J.-B. Bauguitte, K.R. Curry, P. Di Carlo, L. Chisholm, L. Dan, G. Forster, J.E. Franklin, M.D. Gibson, D. Griffin, D. Helmig, J.R. Hopkins, J.T. Hopper, M.E. Jenkin, D. Kindred, J. Kliever, M. Le Breton, S. Matthiesen, M. Maurice, S. Moller, D.P. Moore, D.E. Oram, S.J. O'Shea, R.C. Owen, C.M.L.S. Pagniello, S. Pawson, C.J. Percival, J.R. Pierce, S.



Punjabi, R.M. Purvis, J.J. Remedios, K.M. Rotermund, K.M. Sakamoto, A.M. da Silva, K.B. Strawbridge, K. Strong, J. Taylor, R. Trigwell, K.A. Tereszchuk, K.A. Walker, **D. Weaver**, C. Whaley, and J.C. Young. Quantifying the impact of BOREal forest fires on Tropospheric oxidants over the Atlantic using Aircraft and Satellites (BORTAS) experiment: design, execution and science overview. *Atmos. Chem. Phys.*, 13, 6239-6261, 2013.

Schneider, M., S. Barthlott, F. Hase, Y. González, K. Yoshimura, O. E. García, E. Sepúlveda, A. Gomez-Pelaez, M. Gisi, R. Kohlhepp, S. Dohe, T. Blumenstock, A. Wiegeler, E. Christner, K. Strong, **D. Weaver**, M. Palm, N. M. Deutscher, T. Warneke, J. Notholt, B. Lejeune, P. Demoulin, N. Jones, D. W. T. Griffith, D. Smale, and J. Robinson. Ground-based remote sensing of tropospheric water vapour isotopologues within the project MUSICA, *Atmos. Meas. Tech.*, 5, 3007-3027, doi:10.5194/amt-5-3007-2012, 2012.

C. Adams, K. Strong, R.L. Batchelor, P.R. Bernath, S. Brohede, C. Boone, D. Degenstein, W.G. Daffer, J.R. Drummond, P.F. Fogal, E. Farahani, C. Fayt, A. Graser, F. Goutail, F. Hendrick, F. Kolonjari, R. Lindenmaier, G. Manney, C.T. McElroy, C.A. McLinden, J. Mendonca, J.-H. Park, B. Pavlovic, A. Pazmino, C. Roth, V. Savastiouk, K.A. Walker, **D. Weaver**, and X. Zhao. "Validation of ACE and OSIRIS ozone and NO<sub>2</sub> measurements using ground-based instruments at 80° N." *Atmos. Meas. Tech.*, 5, 927-953, 2012.

## **PUBLIC SPEAKING & OUTREACH**

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*I regularly give public talks about my fieldwork experience at the Polar Environment Atmospheric Research Lab (PEARL) and Arctic atmospheric research I'm involved in.*

- Aug. 2016      Science Unlimited Summer Camp (at U of T)
- Apr. 2016      Our Poles Our Planet Youth Sustainability Conference (Invited talk)
- Nov. 2015      Sigma Xi Distinguished Speaker Series (at U of T)
- Aug. 2015      Science Unlimited Summer Camp (at U of T)
- May 2015      NDACC IRWG meeting (at U of T), Virtual Tour of PEARL
- Mar. 2015      University of Toronto Sustainability Commission (at U of T)
- Oct. 2014      The Association for Science and Reason (Toronto)
- Nov. 2014      Toronto Public Library (with Dr. Zen Mariani)
- Dec. 2013      Fieldstone King's College (Mr. Rob Foster's class)
- May 2012      Ursula Franklin Academy Environmental Assembly  
(with Dr. Patrick Sheese)
- May 2012      Virtual Researcher on Call (Podcast Guest)

## TEACHING EXPERIENCE

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2016 - present **Senior Teaching Assistant, PHY131 Introduction to Physics**  
Department of Physics, University of Toronto

Trained and managed a team of 64 teaching assistants.

2014 - present **Microteaching Senior Teaching Assistant,**  
*Department of Physics, University of Toronto*

Created and delivered training sessions for new graduate students at the Physics Dept., emphasizing strategies for effective pedagogy, Physics Dept.-specific challenges, and public speaking; the mini-course was delivered through lectures and small group sessions.

2011 - 2016 **Practicals Leader for PHY131, Introduction to Physics**  
*Department of Physics, University of Toronto*

Led physics practical sessions (mix of laboratory and tutorial).  
Marked labs, quizzes, and exams.

2015 **Teaching Assistant for Science for Change**  
*School of the Environment, University of Toronto*  
*(pilot co-curricular course)*

Designed and delivered lessons and activities for new interdisciplinary course facilitating engagement between science department undergraduates and entrepreneurship at U of T's Banting & Best Institute, in collaboration with the Rotman School Executive-in-Residence and Faculty of Arts & Science staff.

Wrote report for senior administrative staff regarding the success of the course pilot, and how the concept could be moved forward.

2014 - 2015 **Teaching Assistant for PHY100, The Magic of Physics**  
*Department of Physics, University of Toronto*

Prepared and led tutorial sessions.  
Marked assignments and exams.

2012 - 2014 **Teaching Assistant for PHY205, Physics of Everyday Life**  
*Department of Physics, University of Toronto*

Prepared and led activity-focused tutorial sessions  
Marked assignments and exams.

## NON-UNIVERSITY TEACHING EXPERIENCE

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- Spring 2010     **Teacher Candidate – B.Ed. Practicum**  
*Grade 12 University Physics and Grade 11 University Physics*  
*R. H. King Academy, Toronto District School Board*
- Infused technology (e.g. SMARTboards, Prezi) into lessons to foster learning opportunities and engagement within an academically-focused environment.
  - Created new project-based applied culminating tasks (i.e. design, creation and explanation of catapults, Rube-Goldberg machines).
- Winter 2009     **Teacher Candidate – B.Ed. Practicum**  
*Grade 12 College Physics and Grade 10 Science*  
*Central Technical School, Toronto District School Board*
- Prepared and delivered interactive and engaging lessons that encouraged student attendance (a significant challenge facing the school) through emphasizing hands-on activity-based activities, real-world applications of curriculum topics, and problem solving skills.
  - Implemented teaching strategies that supported diverse learning needs. Examples include providing ELL support and providing additional time to complete assignments to students facing academic and personal challenges.
- Summer 2009     **Textbook Researcher and Writer**  
*Quality of Course Inc.*
- Researched curriculum content using printed book, academic journal, and web-based sources.
  - Wrote textbook chapters and accompanying student evaluation documents to meet rigorous standards for quality.
- 2008             **Teacher**  
*Eagle Learning Center*
- Taught grade 6-12 ESL/ELL students math, science and social science in one-on-one and small group classroom sessions as part of an intense and comprehensive after-school program.
  - Collaboratively developed student-specific teaching strategies with English teachers and counsellor to address language, attitude and capability-based learning challenges.
  - Wrote weekly student analysis and evaluation, marked assignments and created solution sets for assigned homework.

## LEADERSHIP EXPERIENCE (VOLUNTEER)

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2013 - Present **Treasurer**, Board of Directors

*Evidence for Democracy*

- Contribute to strategic decision-making and organizational vision.
- Give public talks about science advocacy campaigns, research, and analysis done by Evidence for Democracy.
- Represent Evidence for Democracy at meetings and events.
- Write content for social media posts.
- Liaise with partner organizations and supporters in Toronto area.
- Plan advocacy events in Toronto (e.g. rallies, panel discussions, supporter gatherings).
- Monitor finances and present statements to the Board of Directors.

2014 - 2015 **President**, Graduate Environmental Students' Association (GESA)

*School of the Environment, University of Toronto*

- Re-created GESA, which had been dormant for several years, to enhance graduate student experience & represent their interests.
- Created a vision for GESA as an organization which fosters interdisciplinary thinking and a sense of community at the recently established School of the Environment.
- Led writing of a constitution and gained GESA official recognition from the University of Toronto and the Graduate Student Union.
- Managed and supported work of GESA Executive members (graduate students) in organizing regular informal social and academic events.
- Moderated GESA's signature interdisciplinary academic event, "Bees, Neonics, and Policy", which featured a panel of experts from different points of view.
- Organized election for new 2015-2016 GESA executive.

2014 – 2015 **Chair**, Trainee's Advisory Committee

*NSERC CREATE Training program in Arctic atmospheric science*

- Initiated and ran meetings of the committee.
- Managed and supported the work of fellow members (e.g. the social media coordination, social events, outreach planning).
- Represented trainee perspective at Program Committee meetings.
- Contributed suggestions about future Summer Institute content to the Program Director on behalf of trainees.

## VOLUNTEER EXPERIENCE

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- 2012 – 2014     **Social Media Coordinator**, Trainee’s Advisory Committee  
*NSERC CREATE training program in Arctic atmospheric science*
- Created and managed Twitter feed (@CREATEArcticSci), Instagram (@CREATEArcticSci) & CREATE Arctic Science blog.
  - Wrote and edited social media posts (e.g. updates about research conducted at PEARL, fieldwork experiences, wildlife sightings).
  - Helped organize CREATE program in Arctic atmospheric science summer school activities
  - Moderated career panels at the CREATE Summer Schools in Arctic atmospheric science.
- 2010 – 2011     **Host Committee Member**  
*Canada-Wide Science Fair*
- Organized a series of engaging educational and social events for 509 science fair finalists from high schools across Canada.
  - Created activities for science fair participants linked with ongoing physical sciences research programs.
- 2008 - 2010     **Science Chase Creator & Coordinator**  
*Science Rendezvous*
- Created The Science Chase for the inaugural Science Rendezvous event in downtown Toronto (2008). This competitive family-friendly team event challenged participants to solve a series of problem solving science activities while fulfilling a dramatic storyline. Equal parts fun adventure and scientific inquiry, this event motivated attendees to ask questions, explore ideas, and get light exercise.
  - Directed research and logistical work of a multi-disciplinary team of University of Toronto undergraduate and graduate students working to conceive, plan and implement Science Chase activities.
  - Expanded the Science Chase event (over 40 participating teams in 2009) by creating separate events for kids (aged 8-12) and for participants aged 15 and over (2010’s event drew hundreds of participants).
  - Organized, trained and managed 100 event-day volunteers each spring (mostly undergraduates from the University of Toronto).