

ELLIE FARAHANI

Centre for Environment & Department of Physics
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KEY COMPETENCIES

RESEARCH SKILLS

- Led multidisciplinary research in corporate and institutional sustainability management
- A decade experience in climate change science, impact assessment, and adaptation & mitigation
- Unique understanding of organizational behaviour, systems thinking and resource management principles
- Focused research on the interaction between system design, behaviour and technology, taking advantage of theories in behavioural economics
- Conducted research in productivity enhancement for for-profit and nonprofit organizations
- Distinct capability in creating overarching strategy and vision for inter-disciplinary research
- Proven ability in research methods, quantitative & qualitative data analysis and synthesis, and handling large data sets

TEACHING & COMMUNICATION SKILLS

- Prepared syllabi for graduate courses and executive workshops for M.Sc. in sustainability science and management (samples are available upon request)
- Delivered lectures for undergraduate courses in institutional sustainability and introduction to strategy
- Organized and delivered training workshops in corporate sustainability management for executive leaders and M.B.A. students
- Outstanding team building and stakeholder engagement capabilities
- Spoken in more than 50 international meetings and delivered several public lectures
- Excellent negotiation skills internationally and domestically
- Published more than 20 times and been highlighted in several newspapers

MANAGEMENT SKILLS

- An accomplished leader in climate change science and corporate sustainability across a range of sectors
- Expertise in coordination and development of successful international collaborations and initiatives
- Well versed in design and delivery of multidisciplinary science-policy and sustainability programs
- Supervised teams of undergraduate students, graduate researchers and junior consultants
- Good understanding of international and academic institutions strategy, policies and practices
- Planned and led 4 Arctic campaigns in Eureka (80N, 86W), Canada
- Experienced in project design, development, implementation, and reporting

TECHNICAL SKILLS

- Adept at action oriented problem-solving using strong lateral thinking, and analytical skills
- Accomplished software skills in Microsoft Office, HTML, Latex, Front Page, Adobe suite and Corel Draw
- Professional programming in MATLAB, Visual Fortran, Perl, and OriginLab
- Deployment and operation of scientific instruments in the Arctic

LANGUAGE SKILLS

- Fluent in English, French, and Farsi

EDUCATION

- | | |
|---|-------------|
| M.B.A. , Kellogg School of Management, Northwestern University, Evanston, IL, USA | 2008 |
| Ph.D. , Experimental Atmospheric Physics, University of Toronto, Toronto, ON, Canada | 2006 |

Thesis: "Stratospheric Composition Measurements in the Arctic and at Mid-latitudes and Comparison with Chemical Fields of Atmospheric Models" under supervision of Professor Kimberly Strong

M.Sc., Experimental Atmospheric Physics, University of Toronto, Toronto, ON, Canada **2000**
Thesis: "Ground-Based Measurements of Arctic Stratospheric Compositions at Eureka" under supervision of Professor Kimberly Strong

B.Sc. Honours, Condensed Matter Physics, Tehran Azad University, Tehran, TH, Iran **1996**
Thesis: "Data Handling by Fiber Optics" under supervision of Professor Morteza Shahbazi

AWARDS & HONOURS

FEDDEV ¹ Ontario Fellowship, Centre for Environment, University of Toronto	2011
Recognition by the Canadian Space Agency as the national highly qualified planetary scientist, CSA	2010
CFCAS ² Fellowship, Department of Physics, University of Toronto	2010
SSHRC ³ Postdoctoral Fellowship, Centre for Environment, University of Toronto	2009
CFCAS IPY ⁴ Postdoctoral Fellowship, Department of Physics, University of Toronto	2007
Participated in IPCC ⁵ modeling efforts, honoured by the Nobel Peace Committee	2007
Presidential Postdoctoral Fellowship, NASA ⁶ Goddard Institute for Space Studies	2006
University of Toronto Fellowship, University of Toronto (<i>4 times</i>)	1999 - 2004
Van Kranendonk Teaching Award, University of Toronto	2002
E.F. Burton Fellowship, University of Toronto	2000
Northern Scientific Training Program Award (<i>5 times</i>)	2000 - 2004
Canadian Northern Studies Trust Research Support	2001

RESEARCH & WORK EXPERIENCE

Joint Research Fellow **2009 - present**

Centre for Environment & Department of Physics, University of Toronto
One of the strongest research and teaching universities in North America, with more than 20,000 staff and faculty members, 75,000 students, an operating budget of \$1.4 billion, and research grant & contract support in excess of \$844 million influencing almost every area of human endeavour

Centre for Environment

- Provided leadership and supervision in creating multidisciplinary sustainability research programs at the interface of social sciences and engineering
- Conducted holistic sustainability research and CDM⁷ study with a particular focus on obtaining a deeper understanding of the interaction between system design, behaviour and technology
- Managed activities and facilitated overall communication among teams of social scientists and engineers of 10 – 20 members
- Designed and tested feedback interfaces, using principles of feedback design and taking advantage of theories in behavioural economics to trigger conservation action in a range of sectors
- Designed and conducted studies on technological solutions used to enhance firm's productivity, taking advantage of controlled laboratory tests, creative behavioural change approaches (e.g. social norms) and focused training programs to promote technology uptake

¹ Federal Development

² Canadian Foundation for Climate and Atmospheric Sciences

³ Social Sciences and Humanities Research Council

⁴ International Polar Year

⁵ Intergovernmental Panel on Climate Change

⁶ National Aeronautics and Space Administration

⁷ Conservation and Demand Management

- Assessed environmental, social and economic aspects of sustainability programs in process of their design and development, and reported to directors of the Centre for Environment and Sustainability Office

Department of Physics

- Led interdisciplinary climate change impact research at the interface of physical and medical sciences and public policy
- Developed a forward-looking climate change impact prediction system in collaboration with human health scientists
- Managed activities and facilitating overall communication among teams of physical and public policy scientists of 10 – 15 members
- Created databases of ultraviolet (UV) irradiances and indices at the Earth's surface for the next 100 years to guide development of relevant public policies, using IPCC climate models
- Provided policy makers with key findings of projected UV decrease impacts in vulnerable Canadian populations

Climate Change Consultant

2009 - present

SPARC⁸ International Project Office, WCRP⁹, UN¹⁰

A United Nations organization uniquely positioned to draw on the totality of climate-related systems, facilities and intellectual capabilities of more than 185 countries to determine the extent to which climate can be predicted, and to determine the extent of human influence on climate

- Built active networks and maintained close liaison with WCRP consortium members which resulted in successful development and delivery of Polar Climate Predictability initiative
- Contributed to planning activities of WCRP, in particular provided technical services in support of the international scientific planning committee
- Prepared relevant scientific databases, reports, funding proposals and technical documents for the WCRP senior scientific officer
- Synthesized scientific data and reports including communicating the most recent scientific findings to the scientific community, media and general public

Director (Co-founder)

2009 - present

Safara Sustainability Solutions Ltd. (www.safara.ca)

A boutique consulting firm in Toronto, ON, Canada, specialized in design, development and implementation of integrated sustainability strategies, plans and programs, comprehensive carbon and resource consumption audits, and sustainability engagement and training programs for private and public sectors

- Designed and delivered integrated market-based solutions, taking systems approach linking system design, technology, and human behavior, to create sustainable organizations
- Developed a strong practice in resource management, sustainability strategy design, and program development and implementation in private and public sectors
- Supervised 7 junior consultants and specialists
- Found creative ways to determine economically wise approaches to manage climate change risks
- Managed commercialization of University of Toronto's sustainability and energy efficiency innovations

International Coordination Officer

2007 - 2009

SPARC International Project Office, WCRP, UN

A core project of the World Climate Research Programme which coordinates international efforts to bring knowledge of the stratosphere to bear on relevant issues in climate variability and prediction

- Carried out the broad coordination of climate change activities internationally among 17 universities and research institutes and reported to the SPARC director

⁸ Stratospheric Processes And their Role in Climate

⁹ World Climate Research Programme

¹⁰ United Nations

- Liaised with members of SPARC consortium to initiate actions as needed to make sure the program was carried out in timely manner, and, ultimately, achieved its overall goals
- Established priorities for research projects and ensured in-time publication of results
- Prepared and reviewed relevant reports, budgets and funding proposals to fund related activities
- Communicated most recent scientific findings within IPY¹¹ context to scientific community, media and general public

Environmental Management Consultant

2007 - 2009

Sustainability Office, University of Toronto

An initiative of EPAC¹² to embed sustainability into the fabric of the university by linking research, teaching and institutional practice, developing and supporting projects, policies and initiatives that reduce consumption of resources while enhancing social engagement and inclusion

- Overseen development of corporate sustainability program for Toronto Hydro IT Infrastructure and Security Departments
- Contributed to development of resource management plan for the University Health Network
- Constructed an innovative set of interactive planning tools and redefined key performance indicators to track project success
- Managed client meetings and presented scoping, physical and behavioural benchmarking, and target setting findings to relevant stakeholders
- Supervised daily activities of teams of 5 – 10 specialists conducting program implementation, revised budgets, and tracked work plans

Environmental Policy Specialist & Post Doctoral Fellow

2006 - 2007

Sustainability Office & Department of Physics, University of Toronto

Sustainability Office

- Reviewed and recommended environmental policies in line with most recent national and international agreements and reported to the director of Sustainability Office
- Managed energy efficiency projects to aid the university in being the leading institute in sustainability
- Facilitated collaboration among different units to achieve the university's objective in greenhouse gas (GHG) emissions reduction and resource conservation
- Promoted sustainable resource management programs and policies for science laboratories

Department of Physics

- Applied statistical approaches to evaluate IPCC models of the Earth's atmosphere to aid in predicting climate change
- Collaborated with climate observation groups to develop climate model-observation comparison methodologies for polar regions
- Assessed quality of observational data to be used in model validation process

Senior Technical Engineer

2006 - 2007

InVisage Technologies Inc., MaRS Centre

A technological firm, currently located in Menlo Park, CA, USA, specialized in creation of Quantum-Film-based image sensors, harnessing the power of custom-designed semiconductor materials

- Commercialized innovations developed by the Department of Electrical Engineering of the University of Toronto
- Supervised research team of 5 members in development of quantum dot digital cameras and solar cells
- Developed a comprehensive strategy and vision for device characterization and equipped the first device characterization laboratory for the firm

¹¹ International Polar Year

¹² Environmental Protection Advisory Committee

- Monitored device characterization process, provided advice to model several quantum dots devices, and reported to the chief operating officer
- Assessed team's progress on systematic analysis of photodetectors optical properties

Researcher

2000 - 2006

Department of Physics, University of Toronto

One of highly celebrated physics departments in the world with a full program of courses and internationally prominent research teams, in both theory and experiment, operating across a broad spectrum of topics and leading collaborative programs in interdisciplinary subjects

- Evaluated IPCC models of the Earth's atmosphere in high Arctic to aid in predicting climate change
- Led field campaigns in the Canadian high Arctic and conducted research on global ozone loss
- Built a database of GHGs in the Canadian high Arctic
- Analyzed and combined ground-based and satellite observations with global models to identify issues contributing to polar climate change
- Established collaboration with 3 Canadian and 4 international teams to formulate opinions on polar ozone
- Partnered with local community in Nunavut, Canada to initiate climate change debate and advance climate research in the Arctic

Research Assistant

1999 - 2000

Department of Physics, University of Toronto

- Conducted research in the Canadian high Arctic to measure ozone and other GHGs
- Commissioned and operated scientific instruments
- Characterized optical and mechanical properties of scientific instruments
- Acquired field data and performed in-depth data analysis

TEACHING EXPERIENCE

St. Michael's College, University of Toronto

2011

- Designed and developed an intensive workshop on corporate and institutional sustainability for executive leaders

Schulich School of Business, York University

2011

- Designed and conducted an intensive sustainability management workshop for executive M.B.A. students and alumni

Centre for Environment & Department of Physics, University of Toronto

2009 - present

- Prepared syllabi for the new program, M.Sc. in sustainability science and management (samples are available upon request)
- Supervised graduate and undergraduate students
- Designed interdisciplinary graduate courses using concepts such as institutional sustainability, climate change risks, prediction techniques, environmental studies, and sustainability management
- Delivered invited lectures on institutional sustainability, resource conservation and climate change for third-year undergraduate students
- Guided design of work plans and thesis proposals
- Reviewed and provided feedback on graduate theses
- Built and maintained multidisciplinary research teams and guided collaborative reporting process
- Facilitated development of three essential skills in students: effective communication, analytical thinking and problem solving

Department of Mechanical Engineering, University of Toronto **2009 - present**

- Designed lectures to help students exploring the complexity of challenges in human factors engineering and climate change science
- Delivered lectures for Introductory Strategy and Practice course and facilitated class discussions
- Prepared depository of reading materials
- Evaluated students presentations and papers

Schulich School of Business, York University **2010**

- Guest lecturer for M.B.A. sustainability module on climate change and sustainability management

University of Toronto, Centre for Environment & Sustainability Office **2006 - 2009**

- Supervised undergraduate students
- Guided design of work plans and research proposals for social sciences and engineering students
- Mentored students and helped them with synthesis of their research challenges

Department of Physics, University of Toronto **1999 - 2005**

- Tutorial leader for second-year quantum mechanics for engineers and science students
- Tutorial leader for first-year physics for engineers and science students, responsible for preparing mini-lectures, quizzes, solutions to problem sets, marking the assignments, and term test papers
- Laboratory demonstrator for first-year physics for engineers, science and life science students
- Tutorial leader for second-year electronics for engineers and science students responsible for preparing mini-lectures, quizzes and solutions to problem sets
- Tutorial leader for first-year physics for engineers and science students responsible for preparing mini-lectures, quizzes, solutions to problem sets, marking the assignments, and term test papers

COMMITTEES

Scientific Organizing committee, WCRP Polar Climate conference **2009 - 2010**
Scientific Organizing committee, SPARC General Assembly **2007 - 2008**
Student Diversity Group, University of Toronto (Co-founder) **2004 - 2006**
Gender Issues Committee, University of Toronto **2001 - 2002**

PROFESSIONAL MEMBERSHIPS

Canadian Meteorological and Oceanographic Society **2005 - present**
Canadian Association of Physicists **2004 - present**
American Geophysical Union **2003 - present**

EXTRACURRICULAR & VOLUNTEER ACTIVITIES

Sustainability social architecture advisor, Bridge Consulting Inc. **2011 - present**
Sustainability management advisor, Greentelligence **2010 - present**
Fundraising organizer, in support of UNICEF Back to school campaign for Haiti **2010**
Co-founder, Safara Sustainability Solutions Ltd. **2009 - present**
Fundraiser volunteer, UNICEF Canada **2004 - present**
Violin performer, Royal Conservatory of Music **2008 - 2009**
Leader of Team Canada, International Physics Olympiad (best result in Canadian history) **2006 - 2007**
Fundraiser and organizer, World Year of Physics, University of Toronto **2004 - 2005**

REFERENCES

Professor Ashwin Joshi

Director, M.B.A. Program
Co-Director, York Consulting Group
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Email: ajoshi@schulich.yorku.ca

Professor Norman McFarlane

Director of SPARC
SPARC International Project Office
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Email: norm.mcfarlane@ec.gc.ca

Dr. Vladimir Ryabinin

Senior Scientific Officer, WCRP, UN
Joint Planning Staff for World Climate Research Programme, WMO
Secretariat, 7bis, Avenue de la Paix, CP2300, Geneva 2, CH-1211
Switzerland
Phone: +41(0) 227308486
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Professor Beth Savan

Director, Sustainability Office, University of Toronto
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Professor Theodore Shepherd

Co-chair of SPARC
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Professor Pekka Sinervo F.R.S.C.

Senior Vice-President, Research, CIFAR
Canadian Institute for Advanced Research (CIFAR)
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Professor Ingrid Stefanovic

Former director of the Centre for Environment (2005 – 2010)
Department of Philosophy, University of Toronto, Alumni Hall, St. Michael's
College, 81 St. Mary Street, 309
Toronto, ON, M5S 1J4, Canada
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Email: ingrid.stefanovic@utoronto.ca

LIST OF PUBLICATIONS

Manuscripts in Preparation

E. Farahani, B. Savan, K. Trinh, A. Loader, L. Gelinias, I. Stefanovic, Z. Matson. *Taking Advantage of Theories in Behavioural Economics in Modifying the Theory of Planned Behaviour to Trigger Conservation Action*, to be submitted to J. Env. Behaviour.

B. Savan, E. Farahani, Z. Matson. *The Role of Behaviour Change Programs in Building Persistent Conservation Habits and a Culture of Sustainability*, to be submitted to Energy Policy

K. Trinh, E. Farahani, A. Adams, B. Savan. *Temporal Design and Test of Feedback Interfaces*, to be submitted to Energy and Environment.

E. Farahani, P. Park, N. McFarlane, T.G. Shepherd, R. Vieth, S. Malik. *Impact of Climate-Induced UV Radiation Changes on Human Health*, to be submitted to Atmosphere-Ocean.

E. Farahani, B. Donmez, B. Savan, D. Photiadis, Z. Matson, C. Wheeler. *B*Focused System to Enhance Firms Productivity – Pilot Tests Results*

Refereed Publications

E. Farahani, N. McFarlane, R.L. Batchelor, R.L. Collins, V.L. Harvey, N.J. Livesey, G.L. Manney, M.L. Santee, K. Strong, and K.A. Walker. *Features of the Arctic Stratosphere During IPY*. SPARC Newslett., pp. 6-13, 33, 2009.

E. Farahani, K. Strong, R. Mittermeier, H. Fast, M. Van Roozendaal, and C. Fayt. *Springtime Arctic Ground-based Spectroscopy of O3 and Related Trace Gases at Eureka, Canada: Part I - Evaluation of the Analysis Method and Comparison with Infrared Measurements*. J. Atmos. Measur. Tech. Disc., 2009.

E. Farahani, H. Fast, R.L. Mittermeier, Y. Makino, K. Strong, C. McLandress, T.G. Shepherd, M.P. Chipperfield, J.W. Hannigan, M.T. Coffey, S. Mikuteit, F. Hase, T. Blumenstock, U. Raffalski. *Nitric Acid Measurements at Eureka, Thule and Kiruna Obtained in Winter 2001/2002 Using Solar and Lunar Fourier Transform Infrared Absorption Spectroscopy and Comparison with Results from Three-dimensional Models*. J. Geophys. Res., 112, 10.1029/2006JD007096, 2007.

S.M.L. Melo, E. Farahani, K. Strong, M.R. Bassford, and K.E. Preston. *NO₂ Vertical Profiles Retrieved from Ground-Based Measurements during Spring 1999 in the Canadian Arctic*. Advances in Space Research, pp. 786-792, 34(4), 2004.

Selected Conference Presentations & Papers in Proceedings and Non-refereed Journals

E. Farahani, N. McFarlane, T.G. Shepherd. *Have We Forgotten about Ozone in the Climate Change Era? Maybe Not!* A popular article prepared for in-flight magazine of Air North. 2010.

E. Farahani, *Impact of Climate-Induced UV Radiation Changes on Human Health*, Presentation at the CSPARC meeting, Faculty Club, Toronto, ON, Canada, December 7, 2010.

B. Savan, E. Farahani, Z. Matson, *The Study of Energy Conservation: Integrating Engineering and the Social Sciences*, Presentation at the Behavior, Energy and Climate Change Conference, Sacramento, CA, USA, November 14-17, 2010.

E. Farahani, K. Strong, R.L. Mittermeier, H. Fast, T.G. Shepherd, *Springtime Arctic Measurements of Trace Gases at Eureka, Canada: Statistical Comparisons with Results from Atmospheric Models*, Presentation at the 44th Annual CMOS Congress, 3rd Joint CMOS-CGU Congress, Ottawa, ON, Canada, May 31-June 4, 2010.

E. Farahani, *The Study of Energy Conservation: Integrating Engineering and the Social Sciences*, Public presentation at the Earth Day at the Centre for Environment, Toronto, ON, Canada, April 22, 2010.

E. Farahani, B. Savan, *Turning Vulnerability to Strength: Building Capacity for Sustainability Science Among Outstanding African Youth*, Presentation at the Perimeter Institute, Waterloo, ON, Canada, April 8, 2010.

E. Farahani, *Our Reminder after Copenhagen: Potential Risks, Possible Solutions, Probable Actions*, Public presentation at the Lunch & Learn at the Centre for Environment, Toronto, ON, Canada, March 28, 2010.

E. Farahani, N. McFarlane, T.G. Shepherd, *Early Results of the SPARC- IPY Project*, NSERC meeting - The IPY Canada Early Results, Ottawa, ON, Canada, February 16-18, 2010.

N. McFarlane, E. Farahani, D. Pendlebury, *SPARC-IPY and Beyond*, SPARC Newslett., pp. 5, 33, 2009.

E. Farahani, *The Earth's Balance Sheet – Numbers, Not Adjectives!* Public presentation at the Royal Bank of Canada Club, Toronto, ON, Canada, November 25, 2009.

E. Farahani, *Climate Change Is What Happens While We Are Busy Making Other Plans!* Public presentation at the Club of Professional Engineers, Toronto, ON, Canada, October 15, 2009.

E. Farahani, N. McFarlane, R.L. Batchelor, R.L. Collins, V.L. Harvey, N.J. Livesey, G.L. Manney, M.L. Santee, K. Strong and K.A. Walker. Features of the Arctic stratosphere during IPY. MOCA-09, Montreal, QC, Canada, July 19-29, 2009.

E. Farahani, *Climate Change Is What Happens While We Are Busy Making Other Plans!* Public presentation at the Schulich School of Business, Toronto, ON, Canada, January 27, 2009.

E. Farahani and N. McFarlane. *Above the Poles: Ozone Research and Polar Vortex*. WCRP News, e-zine Number 12, December 24, 2008.

E. Farahani, S. Polavarapu, T.G. Shepherd and N. McFarlane. *The Structure and Evolution of the Polar Stratosphere and Mesosphere during IPY – Results from SPARC-IPY*. Presentation at the Arctic Change 2008, Quebec City, QC, Canada, December 9-12, 2008.

E. Farahani, R. Ravishankara, and V. Ryabinin. *On Feasibility of a SPARC Polar Initiative*. Presentation at the 16th SPARC Scientific Steering Group Meeting, Toronto, ON, Canada, November 10-13, 2008.

E. Farahani, R. Collins, G. Manney, N. McFarlane, and T.G. Shepherd. *The Structure & Evolution of the Polar Stratosphere & Mesosphere during IPY – SPARC-IPY: Early Results*. Presentation at the SPARC 4th General Assembly, Bologna, Italy, August 30-September 6, 2008.

E. Farahani, N. McFarlane, and T.G. Shepherd. *SPARC-IPY (Activity No 217), The Structure and Evolution of the Polar Stratosphere and Mesosphere and Links to the Troposphere during IPY*. Presentation at the SPARC 4th General Assembly, Bologna, Italy, August 30-September 6, 2008.

E. Farahani, S. Polavarapu, T.G. Shepherd and N. McFarlane. *SPARC IPY: Stratospheric Processes and Their Role in Climate during the International Polar Year*. Presentation at the CMOS 2008 Congress, Kelowna, BC, Canada, May 25-29, 2008.

E. Farahani, R. Collins, G. Manney, N. McFarlane, and T.G. Shepherd. *The Structure and Evolution of the Polar Stratosphere and Mesosphere and Links to the Troposphere during IPY: SPARC-IPY Data Assimilation Component & Pan-Arctic Study of the Coupled Circulation*. Presentation at the CMOS Congress 2008, Kelowna, BC Canada, May 25-29, 2008.

E. Farahani, *Nothing Exists Except Climate Change & Ozone Depletion, Everything Else Is Opinion!* Public presentation at the Environics Group, Toronto, ON, Canada, April 23, 2008.

S. Polavarapu, E. Farahani, G. Manney, N. McFarlane, T.G. Shepherd. *Report on the Joint SPARC Workshop on Data Assimilation and International Polar Year (IPY), 4-7 September 2007, Toronto, Canada*. SPARC Newsletter n30, pp. 27-33, 2008.

E. Farahani, K. Strong, and K. Walker. *What's Happening to Our Climate?* Public presentation at the Delta Alternative School Sr., Toronto, ON, Canada March 26, 2008.

E. Farahani, S. Polavarapu, T.G. Shepherd and N. McFarlane. *SPARC IPY: Stratospheric Processes and Their Role in Climate during International Polar Year*. Poster at the NSERC Researchers Workshop, Gatineau, QC, Canada, October 2007.

E. Farahani, *SPARC-IPY Workshop Overview*. Presentation at the 15th SPARC Scientific Steering Group Meeting, Bremen, Germany, September 18-21, 2007.

E. Farahani and N. McFarlane. *SPARC-IPY Overview*. Presentation at the First International POLARCAT Science Planning Meeting, Paris, France, June 1-5, 2007.

E. Farahani, H. Fast, R.L. Mittermeier, Y. Makino, K. Strong, C. McLandress, T.G. Shepherd, M.P. Chipperfield, J.W. Hannigan, M.T. Coffey, S. Mikuteit, F. Hase, T. Blumenstock, U. Raffalski. *Lunar and solar FTIR Nitric Acid Measurements at Eureka in Winter 2001/2002: Comparisons with Observations at Thule and Kiruna and with CMAM and SLIMCAT Model Calculations*. Presentation at the 40th Annual Canadian Meteorological and Oceanographic Society, Toronto, ON, Canada, May 29-June 1, 2006.

E. Farahani, K. Strong, H. Fast, R.L. Mittermeier, C. McLandress, T.G. Shepherd, M.P. Chipperfield. *Four Years of Stratospheric Composition Measurements in the Canadian High Arctic and Comparison with Atmospheric Models Chemical Fields*. Presentation at the 40th Annual Canadian Meteorological and Oceanographic Society, Toronto, ON, Canada, May 29-June 1, 2006.

E. Farahani, H. Fast, R.L. Mittermeier, Y. Makino, K. Strong, C. McLandress, T.G. Shepherd, M.P. Chipperfield, J.W. Hannigan, M.T. Coffey, S. Mikuteit, F. Hase, T. Blumenstock, U. Raffalski. *Lunar and solar FTIR Nitric Acid Measurements at Eureka in Winter 2001/2002: Comparisons with Observations at Thule and Kiruna and with CMAM and SLIMCAT Model Calculations*. Presentation at the European Geosciences Union General Assembly 2006 Vienna, Austria, April 2-7, 2006. Proceedings of the European Geosciences Union, pp. 952-953, 2006.

E. Farahani, *Arctic Stratospheric Adventure at Eureka: Four Years of Measurements and Model Comparison*. Presentation at the Arctic Working Group Mini-Symposium, Toronto, ON, Canada, March 31, 2006.

E. Farahani, K. Strong. *Arctic Nitric Acid Measurements and Comparisons with the CMAM and SLIMCAT Models*. Presentation at the 13th Annual MAM/GCC Workshop, Toronto, ON, Canada, December 12-13, 2006.

E. Farahani, K. Strong, R.L. Mittermeier, H. Fast. *Comparison of Eureka FTIR Measurements with the CMAM and SLIMCAT Model*. Presentation at the Network for the Detection of Stratospheric Change (NDSC) Infrared Working Group, Toronto, ON, Canada, June 13-15, 2005.

E. Farahani, K. Strong, R.L. Mittermeier, H. Fast, C. McLandress, T.G. Shepherd, and M.P. Chipperfield. *Comparison of Stratospheric Measurements in the Canadian High Arctic with the CMAM and SLIMCAT Models*. Presentation at the Canadian Space Agency Fifth Atmospheric Environment Workshop, Banff, AB, Canada, May 5-7, 2005.

S.M.L. Melo, K. Strong, A.C. Fraser, E. Farahani, C.T. McElroy, C.A. McLinden, J. Davies, C. Haley, C. Boone, F. Goutail, C. von Savigny, and C. Sioris. *Using MANTRA Balloon Measurements for Satellite Validation: First Results*. Presentation at the American Geophysical Union Fall Meeting, San Francisco, CA, USA, December 13-17, 2004.

K. Strong, S.M.L. Melo, E. Farahani, C. McLandress, C. Nowlan, T.G. Shepherd, H. Wu, C.T. McElroy, C.A. McLinden, J. Davies, F. Goutail, P. Fogal, and R. Blatherwick. *The Mid-Latitude Summertime Stratosphere: A Comparison Between MANTRA Balloon Campaign Measurements and the Canadian Middle Atmosphere Model*. Presentation to the SPARC 3rd General Assembly, Victoria, BC, Canada, August 1-6, 2004.

S.M.L. Melo, C. McLandress, H. Wu, E. Farahani, K. Strong, T.G. Shepherd, C.R. Nowlan, R. Saari, C.T. McElroy, C.A. McLinden, J. Davies, C. Haley, C. von Savigny, C. Sioris, J.-C. Lambert, and F. Goutail. *NO₂ Measurements during the MANTRA 2002 Balloon Campaign: Comparisons with Satellite Measurements, Climatology and the Canadian Middle Atmosphere Model*. Presentation at the COSPAR, Paris, France, July 18-25, 2004.

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E. Farahani, N. D'Souza, S. Mirza, K. Mowat, and S. Williams. *Creating through Reuse: A Framework Study*, Community Based Environmental Research. Public presentation at City Hall, Toronto, ON, Canada, April 7, 2004.

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