DANIEL J. VARON

Curriculum Vitae ◇ 25 February 2019
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RESEARCH INTERESTS

Satellite Remote Sensing · Scientific Computing · Machine Learning · Inverse Methods

EDUCATION

Harvard University
PhD in Environmental Science, secondary field in Computer Science
Advisor: Professor Daniel Jacob

Harvard University 2018
MSc in Applied Mathematics

McGill University 2014
BSc in Physics, First Class Honours

McGill University 2014
BA in English Literature, First Class Honours

EXPERIENCE

GHGSat, Inc. 2016–present
Student researcher, analytics software development

PUBLICATIONS

2019 **Varon, D. J.**, D. J. Jacob, J. McKeever, and D. Jervis: Quantifying methane emissions from individual coal mine vents with GHGSat-D satellite observations. *in prep.*, 2019.

2019 **Varon, D. J.**, J. McKeever, D. Jervis, J. D. Maasakkers, S. Pandey, S. Houweling, I. Aben, T. Scarpelli, and D. J. Jacob: Satellite discovery of anomalously large methane point sources from oil/gas production. *Geophys. Res. Lett.*, https://doi.org/10.1029/2019GL083798, 2019.

2019 Cusworth, D. H., D. J. Jacob, **D. J. Varon**, C. Chan Miller, X. Liu, K. Chance, A. K. Thorpe, R. M. Duren, C. E. Miller, D. R. Thompson, C. Frankenberg, L. Guanter, and C. A. Randles: Potential of next-generation imaging spectrometers to detect and quantify methane point sources from space. *Atmos. Meas. Tech. Discuss.*, https://doi.org/10.5194/amt2019-202, 2019.

2018 **Varon, D. J.**, D. J. Jacob, J. McKeever, D. Jervis, B. O. A. Durak, Y. Xia, Y. Huang: Quantifying methane point sources from fine-scale satellite observations of atmospheric methane plumes. *Atmos. Meas. Tech.*, https://doi.org/10.5194/amt-11-5673-2018, 2018.

2015 **Varon, D. J.** "The Drop Fell": Time-Space Compression in *The Waves*. *The Virginia Woolf Miscellany* 86, Fall 2014/Winter 2015: 36-39. PDF.

2013 Lovejoy, S., D. Schertzer, **D. J. Varon**: Do GCMs predict the climate... or macroweather? *Earth System Dynamics* 4, 439-454. doi:10.5194/esd-4-439-2013, 2013.

CONFERENCE PRESENTATIONS

Oral presentations

2019 Quantifying methane emissions from individual coal mine vents with GHGSat-D satellite observations. Abstract presented at the 15th International Workshop on Greenhouse Gas Measurements from Space, Sapporo, JP, 3-5 June 2019.

2019 Quantifying methane emissions from individual coal mine vents with GHGSat-D satellite observations. Abstract presented at the 2019 Industrial Methane Measurements conference, Rotterdam, NL, 22-23 May 2019.

2018 Quantifying methane point sources from fine-scale (GHGSat) satellite observations of atmospheric methane plumes. Abstract presented at the 14th International Workshop on Greenhouse Gas Measurements from Space, Toronto, ON, 8-10 May 2018.

2017 Quantifying methane point sources from fine-scale (GHGSat) satellite observations of atmospheric methane plumes. Abstract presented at (A32D-07) the 2017 American Geophysical Union Fall Meeting, New Orleans, LA, 11-15 December, 2017.

Poster presentations

2018 Quantifying methane emissions from individual coal mine vents with GHGSat-D satellite observations. Poster presented at (A43R-3443) the 2018 American Geophysical Union Fall Meeting, Washington, DC, 10-14 December, 2018.

INVITED TALKS

2019 Quantifying methane point sources with GHGSat-D satellite observations. Presented at SRON Netherlands Institute for Space Research, Utrecht, Netherlands, 24 May 2019.

2019 Research activities: Quantifying methane point sources with fine-scale satellite observations. Presented at University of Michigan Department of Climate and Space Sciences and Engineering, Kort Group meeting, Ann Arbor MI, 5 April 2019.

2019 Research activities: Quantifying methane point sources with fine-scale satellite observations. Presented at NASA Jet Propulsion Laboratory Greenhouse Gas Measurements Workshop, Pasadena CA, 22 February 2019.

HONOURS & AWARDS

2018 AGU Outstanding Student Presentation Award
2017 Harvard University Certificate of Distinction in Teaching
2015 Stonington Graduate Fellowship of Environmental Science and Engineering
2014 McGill University Dean's Honour List

PROGRAMMING SKILLS

Substantial experience: Python, MATLAB, R, LaTeX
Intermediate skill: C, C++, Mathematica, shell script
Basic familiarity: FORTRAN, html

LANGUAGES

English (first language) · **French** (fluency)