

# DANIEL J. VARON

Curriculum Vitae ♦ 25 February 2019

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## RESEARCH INTERESTS

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

## EDUCATION

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### 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

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### GHGSat, Inc.

2016–present

Student researcher, analytics software development

## PUBLICATIONS

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- 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.*, <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 macro-weather? *Earth System Dynamics* 4, 439-454. [doi:10.5194/esd-4-439-2013](https://doi.org/10.5194/esd-4-439-2013), 2013.

## CONFERENCE PRESENTATIONS

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### 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

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- 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

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- 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

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

## LANGUAGES

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