DANIEL J. VARON

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EDUCATION

Harvard University 2015–
Ph.D. Candidate in Environmental Science & Engineering
Advisor: Professor Daniel Jacob

McGill University 2009–2014
B.Sc. in Physics, First Class Honours
Thesis: Star Forming Galaxies in the Merging RCS 2319+00 Supercluster

McGill University 2010–2014
B.A. in English Literature, First Class Honours
Thesis: Cognitively Estranging Spaces in Three Works of Science Fiction

RESEARCH INTERESTS

Satellite remote sensing, inverse modeling, atmospheric radiative transfer, atmospheric chemical composition, atmospheric dispersion modeling

RESEARCH EXPERIENCE

GHGSat, Inc. 1/2016–
Research Scientist

· Conducting observing system simulation experiments on the GHGSat-D microsatellite to assess its ability to quantify methane emissions from individual industrial facilities.

Harvard University, Atmospheric Chemistry Modeling Group 6/2015–
PhD Candidate *Advisor: Prof. Daniel Jacob*

· Inverse modeling of atmospheric methane emissions from point sources.
· Modeling satellite observations of small-scale methane plumes via large eddy simulation of atmospheric dispersion.

Montréal Jewish General Hospital, Dept. of Radiation Oncology 6/2014–12/2014
Research Assistant *Advisor: Dr. Tamim Niazi*

· Analyzed cone-beam CT scans to understand how volume variability of pelvic organs correlates to toxicity in the outcome of 3D conformal radiation therapy for prostate cancer.

Montréal Jewish General Hospital, Dept. of Urology 6/2014–12/2014
Research Assistant *Advisor: Dr. Jacques Corcos*

· Constructed a database for a study of artificial urinary sphincter implantations aiming to identify correlations between previous treatments, pre-operative urodynamic studies, and post-operative outcome.

McGill University, Dept. of Physics 5/2013–6/2014
Undergraduate Research Assistant *Advisor: Prof. Tracy Webb*

· Mapped the distribution of starburst galaxies in a distant merging galaxy supercluster and estimated star formation rates using an infrared galaxy radiation template.

McGill University, Dept. of Physics 5/2011–5/2013
Undergraduate Research Assistant *Advisor: Prof. Shaun Lovejoy*

· Analyzed global temperature variability in four GCMs: ECHO-G, MPI-ESM, GISS-E2-R, and the 20CR project.

PUBLICATIONS

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

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, 2013.

HONOURS & AWARDS

2017 Harvard University Certificate of Distinction in Teaching
2015 Stonington Graduate Fellowship of Environmental Science and Engineering.
2014 McGill University Dean's Honour List.
2013 McGill Faculty of Sciences Summer Research Award.
2012 McGill Faculty of Sciences Summer Research Award.
2011 McGill Faculty of Sciences Summer Research Award.

PROFESSIONAL ASSOCIATIONS

2015– Canadian Association of Physicists
2013– European Geosciences Union
2013– American Geophysical Union

PROGRAMMING SKILLS

Substantial experience: MATLAB, Python, R, Mathematica, LaTeX.
Basic familiarity: C, HTML, Maple.

LANGUAGES

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