

Rose Abramoff

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Current position

Postdoctoral Researcher, Laboratoire des Sciences du Climat et de l'Environnement

Areas of specialization

Biogeochemistry • Terrestrial Biosphere Modeling

Appointments held

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| 2018- | Postdoctoral Researcher, LSCE |
| 2015-2018 | Postdoctoral Researcher, LBNL |
| 2009-2015 | Teaching Fellow, Boston University |

Education

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| 2015 | PhD in Biology: Ecology, Behavior and Evolution, Boston University |
| 2015 | CERTIFICATE in Biogeochemistry, Boston University |
| 2009 | BA in Biology, Amherst College |
| 2009 | BA in Theater and Dance, Amherst College |

Publications & talks

PUBLISHED ARTICLES

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| 2018 | Contributing author to: 2nd State of the Carbon Cycle Report. Chapter 12: Soils |
| 2018 | Sulman BN, Moore JAM, Abramoff RZ , Averill C, Kivlin S, Georgiou K, Sridhar B, Hartman M, Wang G, Wieder WR, Bradford MA, Luo Y, Mayes MA, Morrison E, Riley WJ, Salazar A, Schimel JP, Tang J, Classen AT, Multiple models and experiments underscore large uncertainty in soil carbon dynamics. <i>Biogeochemistry</i> 141:2, 109-123, DOI:10.1007/s10533-018-0509-z |
| 2018 | Savage K, Davidson EA, Abramoff RZ , Finzi AC, Giasson M-A, Partitioning Soil Respiration: Quantifying the Artifacts of the Trenching Method. <i>Biogeochemistry</i> 1-11. DOI:10.1007/s10533-018-0472-8 |
| 2018 | Abramoff RZ , Xu X, Hartmann M, O'Brien S, Feng W, Davidson EA, Finzi AC, Moorhead D, Schimel J, Torn MS, Mayes M (2018), The Millennial model: in search of measurable pools and exchanges in soil carbon cycling for the new century. <i>Biogeochemistry</i> 1-21, DOI:10.1007/s10533-017-0409-7 |

- 2017 Georgiou K, **Abramoff RZ**, Harte J, Riley WJ, Torn MS (2017), Microbial community-level regulation explains soil carbon responses to long-term litter manipulations. *Nature Communications* 1223, 1-10, DOI: 10.1038/s41467-017-01116-z
- 2017 **Abramoff RZ**, Davidson EA, Finzi AC (2017), A parsimonious modular approach to building a mechanistic belowground carbon and nitrogen model. *JGR Biogeosciences* 122, DOI:10.1002/2017JG003796
- 2016 **Abramoff RZ**, Finzi AC (2016), Seasonality and partitioning of root allocation to rhizosphere soils in a midlatitude forest. *Ecosphere* 7.11, e01547, DOI:10.1002/ecs2.1547
- 2015 Finzi AC, **Abramoff RZ**, Darby BA, Spiller KS, Brzostek ER, Phillips RP (2015), Rhizosphere processes are quantitatively important components of terrestrial carbon and nutrient cycles. *Global Change Biology* 21.5, 2082-2094, DOI: 10.1111/gcb.12816
- 2015 **Abramoff RZ**, Finzi AC (2015), Are above-and below-ground phenology in sync? *New Phytologist* 205.3, 1054-1061, DOI: 10.1111/nph.13111

ARTICLES IN PROGRESS

- 2018 **Abramoff RZ**, Torn MS Georgiou K, Tang J, Riley WJ, Spatial gradients can hide soil organic matter temperature sensitivity to warming. *revision, Global Biogeochemical Cycles*
- 2018 Riley WJ, Sierra C, Tang JY, Bouskill NJ, Zhu Q, **Abramoff RZ**, Next generation soil biogeochemistry model representations: A proposed community open source model farm (BeTR-S). *revision, book chapter*

DATASETS

- 2017 Vaughn L, Zhu B, Bimueller C, Porras R, Curtis B, Chafe O, **Abramoff RZ**, Bill M, Torn MS, Soil Mesocosm CO₂ Emissions after ¹³C-glucose Addition, Soil Physical and Chemical Characteristics, and Microbial Biomass, Barrow, Alaska, 2014-2016. *Next Generation Ecosystems Experiment-Arctic, Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (US)* DOI: 10.5440/1364061
- 2016 **Abramoff RZ**, Finzi AC (2016), Phenology and Carbon Allocation of Roots at Harvard Forest 2011-2013. *Long Term Ecological Research Network, Dataset*. DOI:10.6073/pasta/b2fe6d68f23ad815f62a022826028328

SELECTED INVITED PRESENTATIONS

- 2018 **Abramoff RZ**, Torn MS, Georgiou K, Tang J, Riley WJ, A tale of four models, or Spatial gradients can hide the temperature sensitivity of soil organic matter to warming. *Enviro-Lunch Seminar, UC Merced*
- 2017 **Abramoff RZ**, Georgiou K, Tang J, Torn MS, Riley WJ, Mineral surface properties and mean annual temperature control soil carbon stock. *Department of Geography, ETH Zurich*
- 2017 **Abramoff RZ**, Harden J, Georgiou K (presenting author), Tang J, Torn MS, Riley WJ, Managing for C sequestration: a modeling framework for decision-making. *European Geophysical Union Annual Meeting, Vienna, Austria*
- 2016 Mayes MA, Wang G, **Abramoff RZ**, Xu X, Hartman MD, Feng W, Davidson EA, Finzi AC, Moorhead D, Schimel J, O'Brien SL, Thornton PE, Measurable Pools of Soil Carbon for Carbon Cycle Modeling. *American Geophysical Union Fall Meeting*
- 2016 Sulman B, Moore J, Averill C, **Abramoff RZ**, Bradford M, Classen AT, Hartman MD, Kivlin SN, Luo Y, Mayes MA, Morrison EW, Riley WJ, Salazar A, Schimel J, Sridhar B, Tang J, Wang G, Wieder WR, Key Process Uncertainties in Soil Carbon Dynamics: Comparing Multiple Model Structures and Observational Meta-analysis. *American Geophysical Union Fall Meeting*
- 2015 **Abramoff RZ**, Georgiou K, Tang J, Torn MS, Riley WJ, Climate warming and soil carbon cycling: Emergent responses across time and space. *Ecological Society of America Annual Meeting*

Grants, honors & awards

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| 2018 | Marie Curie Individual Fellowship |
| 2018 | MOPGA Laureate |
| 2017 | LBNL EESA Early Career Development Grant |
| 2015 | BU Biogeoscience Symposium Outstanding Oral Presentation Award |
| 2014 | AAUW Dissertation Fellowship |
| 2013 | AGU Outstanding Student Paper Award |
| 2012,2014 | AGU Student Travel Grant Award |
| 2012-2014 | BU George R. Bernard, Jr. Travel Award |
| 2011-2014 | BU GRS Graduate Scholarship |
| 2011-2012 | NSF Graduate STEM in K-12 Education Fellowship |
| 2010-2014 | BU Teaching Fellowship |
| 2010 | NSF East Asia and Pacific Summer Institutes Fellowship |
| 2009-2011 | Amherst College Fellowship for Graduate Study |
| 2009 | BU Dean's Fellowship |
| 2007 | Howard Hughes Medical Institute Independent Research Fellowship |

Teaching & Mentorship

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| 2013-2014 | Pomona College undergraduate thesis advisor: Johanna Recalde |
| 2012,2013 | Harvard Forest REU Program Mentor: Samuel Knapp, Arline Gould, Johanna Recalde |
| 2011-2015 | Undergraduate Research Intern Mentor: Amanda Alon, Aubree Woods |
| 2011-2012 | NSF GK-12 GLACIER Teaching Fellow: Curley K-8 School |
| 2010-2015 | BU Teaching Fellow: Biology I, Biology II, Ecology |

Service to the profession

PROFESSIONAL SERVICE

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| 2017 | European Geophysical Union Member |
| 2016- | LBNL Women Scientists and Engineers Council Empowerment Committee Member |
| 2016- | CRS BASIS Steering Committee Member |
| 2016 | CCIWG International Decade of Soil Workshop Organizer |
| 2015- | AGU Global Environmental Change Executive Committee Member |
| 2013-2015 | LTER Higher Education Working Group Member |
| 2013-2015 | LTER Harvard Forest Graduate Student Representative |
| 2012- | Ecological Society of America Member |
| 2012- | American Geophysical Union Member |
| 2014-2017 | Reviewer for 15+ journals, including: Nature Climate Change, Nature Communications, Global Change Biology, New Phytologist, Soil Biology & Biochemistry, Geoscientific Model Development, Biogeosciences, Agricultural & Forest Meteorology, Geoderma |

OUTREACH

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| 2017 | The Climate Music Project Science Advisor |
| 2015-2016 | CRS BASIS Volunteer & Team Leader |
| 2012-2015 | BU Advocates for Literacy in Environmental Sciences Founding Member (Received Graduate Student Organization Award for Excellence in Student Activities) |
| 2013 | Pierce School Climate Change Summit Moderator |
| 2012 | Curley K-8 School Science Fair Judge |

2011 NSF GK-12 GLACIER Fundraiser Organizer
2011 Summer Pathways Program: Tech Savvy Program Coordinator
2011 Biology Inquiry & Outreach with Boston University Graduate Students Volunteer Instructor

Media Mentions

2018 [When Rainforest is Cleared for Palm Oil, a Jet Liner of Carbon is Produced Inverse](#)
2017 [EESA Leads Development of New-Generation Soil Carbon Model EESA News Page](#)
2017 [Editor's Highlight Journal of Geophysical Research: Biogeosciences](#)
2017 [EESA Research Shines Light on Role Soil Microbes Play in Carbon Sequestration EESA News Page](#)
2015 [Tracing Our Roots: GRS student digs deep into the carbon cycle BU Today](#)

Programming Skills

R, Matlab, Fortran, Python, Unix, High Performance Computing