

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

2018-	Postdoctoral Researcher, Laboratoire des Sciences du Climat et de l'Environnement
2015-2018	Postdoctoral Researcher, Lawrence Berkeley National Laboratory
2009-2015	Teaching Fellow, Boston University

Education

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

2019	Abramoff RZ , Torn MS, Georgiou K, Tang J, Riley WJ, Soil organic matter temperature sensitivity cannot be directly inferred from spatial gradients. <i>Global Biogeochemical Cycles</i> 33:6, 761-776, DOI:10.1029/2018GB006001
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. *Biogeochemistry* 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

DATASETS

- 2017 Vaughn L, Zhu B, Bimueler 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

- 2019 **Abramoff RZ**, Georgiou K, Guenet B, Huang Y, Zhang H, Feng W, Jagadamma S, Kaiser K, Kothawala D, Mayes M, Camino-Serrano M, Ciais P, Maximum capacity of mineral-sorbed organic matter. *Soil process seminar, LUKE, Helsinki*
- 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, UZH 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*

Grants, honors & awards

- 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

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

2019-	Ecological Forecasting Initiative Member
2019	Expert Reviewer for Working Group I IPCC Sixth Assessment Report
2017-	European Geophysical Union Member
2016-2019	LBNL Women Scientists and Engineers Council Empowerment Committee Member
2016-2017	CRS BASIS Steering Committee Member
2016	CCIWG International Decade of Soil Workshop Organizer
2015-2018	AGU Global Environmental Change Executive Committee Member
2013-2015	LTER Higher Education Working Group Member
2013-2015	LTER Harvard Forest Graduate Student Representative
2012-2015	Ecological Society of America Member
2012-	American Geophysical Union Member
2014-	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

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, High Performance Computing