PIERRE GENTINE
Associate Professor
Department of Earth and Environmental Engineering & Earth Institute
Columbia University
500 West 120th Street, Mudd 842C, New York, NY 10027
Phone: (212) 854 7287, Fax: (212) 854 7081
Email: pg2328@columbia.edu

FIELDS OF SPECIALIZATION

- Land-atmosphere interactions, boundary layer, ecohydrology, remote sensing, convection.

EDUCATION

2007-2010	Ph. D., Civil and Environmental Engineering, Massachusetts Institute of Technology Advisor: Dr. Dara Entekhabi Dissertation Title: Spectral behavior of the land-atmosphere system
2004-2006	M.Sc., Civil and Environmental Engineering, Massachusetts Institute of Technology
1997-2002	M.Eng. – "Ingénieur" degree SupAéro – French National Aeronautical and Space Engineering school, Applied Mathematics, Toulouse, France

PROFESSIONAL RECORD

2017-	Tenured Associate Professor, Earth and Environmental Engineering, Columbia University
2016-2017	Associate Professor, Earth and Environmental Engineering, Columbia University
2013-	Junior faculty, Earth Institute, Columbia University (by nomination)
2011-2016	Assistant Professor, Earth and Environmental Engineering, Columbia University
2009-2011	Instructor, Applied Physics and Applied Mathematics, Columbia University

HONORS AND AWARDS

- American Geophysical Union (AGU) Global Environmental Change Early Career Award (2017)
- American Meteorological Society (AMS) Clarence Meisinger Award (2017)
- Invited scientist at ECMWF (European Centre for Medium range Weather Forecast - 2016)
- NSF CAREER award (2016)
- Department of Energy (DOE) Early Career award (2015)
- NASA New Investigator Program (early career) award (2014)
- Excellence in refereeing – Geophysical Research Letters (2013)
- Invited professorship award – Wageningen University (2013)
- Invited professorship award – Ecole Normale Superieure (2012)
- Shoettler fellowship MIT (2004-2006)

PUBLICATIONS: PEER REVIEWED JOURNAL ARTICLES

(Student are in bold red, Post-Docs are underlined, co-advised students are in bold and italic)

In preparation

1. **Kennedy D.**, Fisher R., Bonan G., Lawrence D., **Gentine P.**, Implementation of a plant hydraulics scheme in the Community Land Model (CLM), *Geo. Mod. Development*
2. **Guérin M.**, Benito-Martin D., Griffin K., Hamdam R., Andreu-Hayles L., McDowell N., Pockman W., Von Arx G., **Gentine P.**, Wood anatomy and plant hydraulics adaptation to drought

In review

1. Davini P., **Gentine P.**, Park S., D'Andrea F., Is evaporative cooling important for stratocumuli?, *Geo. Res. Letters*
2. Anber U., Wang S., **Gentine P.**, and Jensen M.P., Probing aerosol indirect effect on deep convection using idealized cloud- resolving simulations with parameterized large-scale dynamics, *JAMES*.
3. Liu Y.Y., et al. **Gentine P.**, Enhanced canopy growth precedes senescence during Amazonia droughts, *Rem Sens Env.*
4. Liu Y., Guan K., Konings A., **Gentine P.**, Estimating global ecosystem iso/anisohydry using active and passive microwave satellite data, *J Geo Res - Biogeoscience*
5. Merlin O., et al. **Gentine P.**, A phenomenological model of soil evaporative efficiency using readily available data, *Agr Forest Meteor*
6. Boland M. R., Gelman A., Parhi P., **Gentine P.**, et al., A Global Exploration Reveals the Exposures Responsible for Birth Season – Disease Effects, *Scientific Reports*
7. **Giardina F.**, Konings A., Uriarte M., Oliveira R., **Gentine P.**, Tall Amazonian forests are more resistant to precipitation variability, *Nature Geo*
8. **Lemordant L.**, Cook. B., Swann A., Scheff J., **Gentine P.**, Vegetation physiology controls continental dryness response to climate change
9. **Gentine P.,** Fu. R, Kennedy D., Green J., Lintner. B., Massmann A., Villa-Guerau J., Land-atmosphere interactions in the tropics, *Adv. Water Resources*

In revision

1. Santanello, J.A.., Dirmeyer P.A., Ferguson C., Findell K., Tawfik A., Berg A., Ek M., **Gentine P.,** Guillod B., van Heerwaarden C., Roundy J., Wulfmeyer V., Land-Atmosphere Interactions: The LoCo Perspective, *BAMS*
2. **Lin, C.**, **Gentine P.**, Huang, Y.; Guan, K.; Kimm, H.; Zhou, S., Dial ecosystem conductance responses to vapor pressure deficit between optimality and Leuning's models and independent of soil moisture, *Ag. Forest Metor.*
3. Kolassa J., Reichle R.H., Liu Q., Alemohammad S.H, **Gentine P.**, Estimating surface soil moisture from SMAP observations using a Neural Network, *Remote Sens Env*
4. **Guérin M.**, Benito-Martin D., Griffin K., Hamdam R., Andreu-Hayles L., McDowell N., Muscharella B., Pockman W., Von Arx G., **Gentine P.,** Drought-induced adaptation in evaporative anatomy impacts drought resilience, *Tree Physiology*
5. Park S., **Gentine P,** Role of shear on shallow convection, *Journal of the Atmospheric Sciences*
6. **Gentine P.**, Steeneveld G.-J., Heusinkveld B., Holtslag A.A.M., Coupling between radiation divergence and turbulence near the surface: possible implications for model warm biases, *Quarterly Journal of the Royal Meteorological Society*

In press/published

1. Davini P., **Gentine P.**, Park S., D'Andrea F., (2017), Coherent structures in large-eddy simulations of a non-precipitating stratocumulus-topped boundary layer, *J Atmos Sci*
2. Alemohammad S.H. et al., and **Gentine P.**, (2017), Water, Energy, and Carbon with Artificial Neural Networks (WECANN): A statistically-based estimate of global surface turbulent fluxes using solar-induced fluorescence, *Biogeosciences*
3. Mastrotheodoros T., Pappas C., Molnar P., Burlando P., Keenan T., **Gentine P.,** Fatichi S., (2017), Subtle trends in physiological traits can explain the unexpected increase in water use efficiency, *J Geo*

Res-Biogeosciences

4. Findell K.L., Berg A., **Gentine P.,** Krasting J.P., Lintner B.R., Malyshev S., Santanello J.A., Shevliakova E., (2017), The impact of historical land use/land cover change on regional climate extremes, *Nature Communications*
5. Boland M. R., Gelman A., Parhi P., **Gentine P**., (2017), Climate Classification is an Important Factor in Assessing Quality-of-Care Across Hospitals, *Scientific Reports*
6. Cavusoglu A., Chen X., Sahin O., **Gentine P**., (2017), Natural evaporation is a water-saving low-intermittency renewable energy source, *Nature Communications*
7. Park S., **Gentine P**. and Heus T., Role of evaporative cooling in shallow convection, (2017), *J Geo Res-Atmosphere*
8. Van Emmerik T., Steele-Dunne S., Hut R., **Gentine P**., Guerin M., Oliveira R., Wagner J., Selker J., Van De Giesen N., (2017), Measuring Tree Properties and Responses Using Low-Cost Accelerometers, *Sensors*
9. ***McColl K.,*** Katul G., van Heerwaarden C., **Gentine P**., Entekhabi D., (2017), Role of large eddies in the breakdown of the Reynolds analogy in an idealized unstable atmospheric surface layer, *Quarterly Journal of the Royal Meteorological Society*
10. **Green J.,** Konings A., Kolassa J., Alemohammad H., Entekhabi D., **Gentine** P., Hotspots of biosphere-atmosphere feedbacks, (2017), *Nature Geo*
11. Kolassa J., **Gentine P**., Prigent C., Aires F., (2017), Soil moisture retrieval from AMSR-E and ASCAT microwave observation synergy: Product presentation and synergy, *Remote Sens Env*
12. **Cheng Y.,** Sayde C., Selker J., **Gentine P.,** (2017), Failure of Taylor's hypothesis in the atmospheric surface layer and its correction, *Geo Res Letters,* doi: 10.1002/2017GL073499
13. Klinger C., Mayer B., Jakub F., Zinner T., Park S., **Gentine P**., (2017), Effects of 3D thermal radiation on cloud development, *Atmos. Chem. and Phys.,* doi:10.5194/acp-2016-896
14. Konings A., Williams P., **Gentine P**., (2017), Sensitivity of grassland productivity to aridity controlled by stomatal and xylem regulation, *Nature Geo*; doi:10.1038/ngeo2903
15. **Gentine P., Chhang A.,** Rigden A., Salvucci G., (2016), Evaporative fraction estimates using weather station data and boundary layer theory, *Geo Res Letters*
16. Krakauer N.Y, Puma M.J., Cook B.I., **Gentine P**., Nazarenko L. and Kelly M., (2016), Ocean-Atmosphere interactions modulate irrigation's climate impact, *Earth Sys Dyn*
17. **Lemordant L.,** Drobinksy P., Stefanon M., Fatichi S., **Gentine P.,** CO_2 fertilization could mitigate heat waves and exacerbate summer dryness in future climate, *Geo Res Letters*, doi: 10.1002/2016GL069896
18. Merlin O., et al. **Gentine P**., (2016), Modeling soil evaporation efficiency in a range of soil and atmospheric conditions: A downward approach based on multi-site data, *Water Resources research,* doi: 10.1002/2015WR018233
19. Konings A., **Gentine P**., Global variations in Ecosystem-scale Isohydricity, (2016), *Global Change Biology,* doi: 10.1111/gcb.13389
20. ***McColl K.,*** Katul G., **Gentine P**., Entekhabi D., (2016), Mean velocity profile of smooth channel flow explained by a cospectral budget model with wall-blockage, *Physics of Fluids letter,* 28 (3), 035107
21. Park S., **Gentine P**., Farge M., Schneider K., (2016), Coherent Structures in the Boundary and cloud layers: role of updrafts, subsiding shells and environmental subsidence, *Journal of the Atmospheric Sciences,* 73 (4), 1789-1814
22. **Gentine P**., **Garelli A.,** Park S., Nie J. ,Torri G., Kuang Z., (2016), Role of surface heat fluxes underneath cold pools, *Geophysical Research Letters,* 43 (2), 874-883
23. Kolassa J., **Gentine P**., Prigent C., Aires F., (2015) Soil moisture retrieval from active/passive microwave synergy: a methodology analysis, *Remote Sens Env,* 173, 1-14
24. ***Parhi P.,*** Ginannini A., **Gentine P**., Lall U., (2015) Resolving contrasting regional rainfall response of an ENSO teleconnection over tropical Africa, *J Climate,* 29 (4), 1461-1476
25. Li D., Katul G., **Gentine P.,** (2015) The K-1 scaling of temperature spectra in atmospheric surface layer flows, *Quarterly Journal of the Royal Meteorological Society,* 142 (694), 496-505
26. ***Anber U.,*** **Gentine P**, Wang S., Sobel A.H., (2015) Fog and rain in the Amazon, *Proceedings of the*

National Academy of Science, 112 (37), 11473-11477

27. Findell K.L, **P. Gentine**, B.R. Lintner, B.P. Guillod, (2015) Data length requirements for observational estimates of land-atmosphere coupling strength, *J Hydrometorology,* 16 (4), 1615-1635
28. **Gentine P.**, **M. Guérin,** M. Uriarte, N. McDowell, W. Pockman, (2015) An allometry-based ecohydrological model of survival strategies to drought, *Ecohydrology, doi:* 10.1002/eco.1654
29. Lintner B.R., **P. Gentine**, K.L. Findell, G. Salvucci, (2015) The Bydyko and complementary relationship: a large-scale land-atmosphere perspective, Hydrology and Earth System Sciences, 19 (5), 2119-2131
30. Couvreux F. et al., **P. Gentine**, (2015) Daytime moist convection over the semi-arid Tropics: impact of parametrizations in CMIP5 and other models, *Quarterly Journal of the Royal Meteorological Society,* 141 (691), 2220-2236
31. ***Rieck M.***, C. Hohenegger , **Gentine** P., (2015) The effect of moist convection on thermally induced mesoscale circulations, *Quarterly Journal of the Royal Meteorological Society,* 141 (691), 2418-2428
32. Berg A., H.K. Findell, B.R. Lintner, S. Malyshev, S.I. Seneviratne, P. **Gentine** (2014) Interannual coupling between summertime surface temperature and precipitation: processes and implication for climate change, *J Climate* **28**, 1308–1328
33. **Gentine P.**, Bellon G., van Heerwaarden C. (2014) A closer look at boundary-layer inversion in large-eddy simulations and bulk models: buoyancy driven case *Journal of the Atmospheric Sciences* **72**, 728–749
34. ***Guillod B.P.***, Gentine. P., Lintner B.R., Scott R.L. van den Hurk B., Seneviratne S.I., Land surface controls on afternoon precipitation diagnosed from observational data: Uncertainties, confounding factors and the possible role of vegetation interception, *Atmos Chem and Physics* **14**, 8343-8367
35. Rochetin N., B.R. Lintner, H.K. Findell, A.H. Sobel, P. **Gentine**, (2014) Radiative convective equilibrium over a land surface *J Climate* **27**, 8611–8629
36. Berg A., B.R. Lintner, H.K. Findell, S. Malyshev, P. Loikith, P. **Gentine**, (2014) Impact of soil moisture-atmosphere interactions on surface temperature distribution *J Climate* **27**, 7976–7993
37. D'Andrea F., P. **Gentine**, B.R. Lintner, A.K. Betts (2014) Triggering deep convection with a probabilistic plume model *Journal of the Atmospheric Sciences* **71**, 3881–3901
38. Aires F., P. **Gentine**, K. Findell, B.R. Lintner, C. Kerr (2014), Neural-network based sensitivity analysis of summertime convection over the continental US, *J Climate*, 131126143958004. doi:10.1175/JCLI-D-13-00161.1.
39. **Gentine**, P., A. A. M. Holtslag, F. D'Andrea, and M. Ek (2013), Surface and atmospheric controls on the onset of moist convection over land, *J Hydrometeorol*, 130211131121003, doi:10.1175/JHM-D-12-0137.1.
40. **Gentine**, P., A. K. Betts, B. R. Lintner, K. L. Findell, C. C. van Heerwaarden, A. Tzella, and F. D'Andrea (2013), A probabilistic-bulk model of coupled boundary layer and convection: 1) Clear-sky case, *Journal of the Atmospheric Sciences*, *70*, 1543–1556, doi:10.1175/JAS-D-12-0145.1.
41. **Gentine**, P., A. K. Betts, B. R. Lintner, K. L. Findell, C. C. van Heerwaarden, and F. D'Andrea (2013), A probabilistic-bulk model of coupled boundary layer and convection: 2) Shallow convection case, *Journal of the Atmospheric Sciences*, *70*, 1557–1576, doi:10.1175/JAS-D-12-0146.1.
42. **Gentine**, P., C. R. Ferguson, and A. A. M. Holtslag (2013), Diagnosing evaporative fraction over land from boundary-layer clouds, *J Geophys Res-Atmos*, *118*(15), 8185–8196, doi:10.1002/jgrd.50416.
43. Berg, A., K. Findell, B. R. Lintner, P. **Gentine**, and C. Kerr (2013), Precipitation sensitivity to surface heat fluxes over North America in reanalysis and model data, *J Hydrometeorol*, 130122134735005, doi:10.1175/JHM-D-12-0111.1.
44. Lintner, B. R., P. **Gentine**, K. L. Findell, F. D'Andrea, A. H. Sobel, and G. D. Salvucci (2013), An idealized prototype for large-scale land-atmosphere coupling, *J Climate*, *26*(7), 2379–2389, doi:10.1175/JCLI-D-11-00561.1.
45. Salvucci, G. D., and P. **Gentine** (2013), Emergent relation between surface vapor conductance and relative humidity profiles yields evaporation rates from weather data, *Proceedings of the National Academy*

of Sciences, doi:10.1073/pnas.1215844110.
46. Beziat, P., Rivalland, V., Tallec, T., Jarosz, N., Boulet, G., & **Gentine**, P. (2013). Evaluation of a simple approach for crop evapotranspiration partitioning and analysis of the water budget distribution for several crop species. *Agricultural And Forest Meteorology*, *177*, 48–56.
47. **Gentine**, P., B. Heusinkveld, and D. Entekhabi (2012), Systematic Errors in Ground Heat Flux Estimation and Their Correction, *Water Resour Res*, *48*(9), W09541, doi:10.1029/2010WR010203.
48. **Gentine**, P., P. D'Odorico, B. R. Lintner, G. Sivandran, and G. Salvucci (2012), Interdependence of climate, soil, and vegetation as constrained by the Budyko curve, *Geophys Res Lett*, *39*(19), L19404–, doi:10.1029/2012GL053492.
49. **Gentine**, P., T. J. Troy, B. R. Lintner, and K. L. Findell (2012), Scaling in surface hydrology: progress and challenges, *Journal of Contemporary Water Research & Education*, *147*(1), 28–40, doi:10.1111/j.1936-704X.2012.03105.x.
50. Lee, J.-E., Lintner, B. R., Neelin, J. D., Jiang, X., **Gentine**, P., Boyce, C. K., et al. (2012). Reduction of tropical land region precipitation variability via transpiration. *Geophysical Research Letters*, *39*(19), L19704. doi:10.1029/2012GL053417
51. **Gentine**, P., D. Entekhabi, and J. Polcher (2011a), The Diurnal Behavior of Evaporative Fraction in the Soil-Vegetation-Atmospheric Boundary Layer Continuum, *J Hydrometeorol*, *12*(6), 1530–1546, doi:10.1175/2011JHM1261.1.
52. **Gentine**, P., J. Polcher, and D. Entekhabi (2011b), Harmonic propagation of variability in surface energy balance within a coupled soil-vegetation-atmosphere system, *Water resources Research*, *47*, 1–21, doi:10.1029/2010WR009268.
53. Findell, K., P. **Gentine**, and B. Lintner (2011), Probability of afternoon precipitation in eastern United States and Mexico enhanced by high evaporation, *Nat Geosci*, *4*(7), 434–439,doi:10.1038/NGEO1174.
54. **Gentine**, P., D. Entekhabi, and J. Polcher (2010), Spectral Behaviour of a Coupled Land-Surface and Boundary-Layer System, *Bound-Lay Meteorol*, *134*(1), 157–180, doi:10.1007/s10546-009-9433-z.
55. Boulet, G., A. Chehbouni, P. **Gentine**, B. Duchemin, J. Ezzahar, and R. Hadria (2007), Monitoring water stress using time series of observed to unstressed surface temperature difference, *Agr Forest Meteorol*, *146*, 159–172, doi:10.1016/j.agrformet.2007.05.012.
56. **Gentine**, P., D. Entekhabi, A. Chehbouni, G. Boulet, and B. Duchemin (2007), Analysis of evaporative fraction diurnal behaviour, *Agr Forest Meteorol*, *143*, 13–29, doi:10.1016/j.agrformet.2006.11.002.

PUBLICATIONS: BOOK

Co-Editor with A.A.M Holtslag (Wageningen University) of:
Land-atmosphere interactions: coupling between the energy, water and carbon cycles, *Wiley*
Expected publication date: January 2018

GRANTS AND CONTRACTS AWARDED

Total project funding received amounts to $4,000,000 as PI

- **NASA ROSES** 2017-2019 ($100,000): "Quantum computing with applications to the carbon cycle"
- **NOAA** 2017-2020 ($450,000): "Biosphere-atmosphere regulations of droughts assessed using microwave and solar-induced fluorescence observations and improved plant water stress representation"
- **National Science Foundation - Climate and large-scale dynamics** 2017-2020 ($450,000): "Cloud albedo feedback on tropical continents"
- **National Science Foundation - Climate and large-scale dynamics** 2017-2020 ($200,000):

"Transition between shallow and deep convection"

- **National Science Foundation CAREER** 2016-2021 ($500,000): "Departure from Monin-Obukhov Similarity Theory (MOST) using high-resolution models
- **Department of Energy early career** 2015-2020 ($750,000): "Cross-Scale Land-Atmosphere Interactions (CSLAEX)"
- **NASA ROSES** 2014-2017 ($450,748): "Neural network retrieval of soil moisture from SMAP for use in NWP centers"
- **NASA New Investigator Program** 2014-2017 ($258,011): "A unified parameterization of dry and moist convection"
- **Department of Energy /GoAmazon** grant 2014-2017 (share as co-PI $316,817, total >$2M) with Jung-Eun Lee (Brown University-PI): "Ecophysiological control on Amazonian precipitation seasonality and variability"
- **NASA ROSES** grant 2013-2015 ($265,305): "Downscaling of flooded fraction derived from low-resolution microwave measurements"
- **Department of Energy /Atmospheric Science Research** grant 2012-2015 (share as co-PI $96,000, total $500,000) with Zhiming Kuang (Harvard-PI): "Probing the transition from shallow to deep convection using ASR data and large-eddy simulations"
- **National Science Foundation/Climate and Large-scale dynamics** grant 2011-2014 (share as co-PI $259,000, total $500,000): "Quantifying the impacts of atmospheric and land-surface heterogeneity and scale on soil moisture-precipitation feedbacks"

INVITED TALKS

2017	ETH Zürich
2017	EGU Spring meeting (two invited talks)
2017	Ghent University
2017	Lamont Doherty
2017	NASA GSFC
2016	Brown University
2016	University of Illinois at Urbana Champaign
2016	NASA
2016	European Centre for Medium Weather Forecast
2016	Colorado State University
2016	American Meteorological Society meeting
2015	AGU meeting
2015	MIT
2014	DOE ASR meeting
2014	DOE Tropical system meeting
2014	University of Virginia
2013	Stony Brook
2013	DOE ASR meeting
2013	TU Delft
2013	Wageningen University
2012	GLASS/GASS Workshop
2012	Ecole Normale Superieure
2012	Boston University
2012	ETH Zürich

2011 UC Berkeley
2011 UC Irvine
2011 Princeton University
2011 Georgia Tech
2011 Massachusetts Institute of Technology

SERVICE AND MEMBERSHIPS

Professional service:

- NOAA drought task force co-lead (2017-2020)
- OCO-3 satellite mission science objective team member
- World Climate Research Program (WCRP)'s Working Group on Seasonal to Interannual Prediction - member
- Global Land/Atmosphere System Study (GLASS) Global Energy and Water Cycle Experiment (GEWEX) - member
- LoCo (Local Coupling) Global Energy and Water Cycle Experiment (GEWEX) - member
- CUAHSI (Consortium of Universities for the Advancement of Hydrologic Science, Inc.) Columbia University representative
- American Geophysical Union (AGU) member
- American Meteorological Society (AMS) member
- Organizer of the Alpine summer school on land-atmosphere interactions (2015)
- NSF white paper panelist on the future of funding in hydrometeorology and hydroclimatology

Columbia University service:

- School
- Committee on instruction (COI)
- Eagleston scholar supervision
- Department
- Head of graduate committee
- Department undergraduate committee
- Department undergraduate orientation
- Department seminar organization
- Institute
- Earth Institute postdoctoral selection committee

EDITOR/REVIEWER

Associate Editor:

Hydrology and Earth System Sciences
Journal of Hydrometeorology
Frontiers in hydrology (up to 2017)
Frontiers in atmospheric sciences (up to 2017)

Reviewer:

- **Journals:**
  Nature, Nature climate change,Water resources research, Advances in water resources, Journal of hydrology, Boundary-layer meteorology, Journal of hydrometeorology, Journal of climate, Journal of

the atmospheric sciences, Atmospheric Chemistry and Physics, Hydrology and Earth system sciences, Biogeosciences.

- **Proposals:**
  National Science Foundation, National Science Foundation CAREER, Department of Energy, NASA, NERC, Dutch space agency, Swiss Foundation, Department of Energy Laboratory review.

TEACHING EXPERIENCE

University Courses

Sole Lecturer

- Linear algebra Fall 2009, Fall 2011, Columbia University
- Principle of Applied Mathematics Spring 2011, Columbia University
- Hydrology Fall 2011, 2012, 2013, 2014, 2015, 2016
- Hydrosystems Spring 2013, 2014, 2015, 2016, 2017
- Management and development of water systems Spring 2014, 2015, 2017

Evaluations and number of students:

Course number	Name	Number of students
EAEE6240_001_2015_3	PHYSICAL HYDROLOGY	29
Course mean 4.43 Instructor mean 4.52		
CIEEE3250_001_2015_1	(shared) HYDROSYSTEMS ENGINEERING	19
Course mean 3.00 Instructor mean 3.33		
ECIAW4100_001_2015_1	(shared) MGMT & DEVPT OF WATER SYSTEMS	39
Course mean 3.57 Instructor mean 3.62		
EAEEE6240_001_2014_3	PHYSICAL HYDROLOGY	14
Course mean 4.7 Instructor mean 4.88		
ECIAW4100_001_2014_1	(shared) MGMT & DEVPT OF WATER SYSTEMS	29
Course mean 4.09 Instructor mean 4.27		
CIEEE3250_001_2014_1	(shared) HYDROSYSTEMS ENGINEERING	24
Course mean 3 Instructor mean 3.22		

EAEEE6240_001_2013_3	PHYSICAL HYDROLOGY	8

Course mean 4.75
Instructor mean 4.5

ECIAW4100_001_2013_1	(shared) MGMT & DEVPT OF WATER SYSTEMS	52

Course mean NA
Instructor mean NA

CIEEE3250_001_2013_1	(shared) HYDROSYSTEMS ENGINEERING	20

Course mean NA
Instructor mean NA

EAEEE6240_001_2012_3	PHYSICAL HYDROLOGY	8

Course mean NA
Instructor mean NA

Guest Lecturer

- Woods Hole Geophysical Fluid Dynamics summer school – Summer 2014

RESEARCH SUPERVISED AS SPONSOR

Post-doctoral

- Dr. Qi Li (2016 –) – Departure from Monin Obukhov
- Dr. Seyed Hamed Alemohammad (2016 –) – Soil moisture retrieval using machine learning techniques
- Dr. Alexandra Konings (2015 – 2016) now Assistant Professor at Stanford – Retrieving vegetation water stress from remote sensing
- Dr. Bin Fang (2015 – 2016) now working in the private sector – Soil moisture retrieval using machine learning techniques
- Dr. Seung-Bu Park (2014 – 2017) now Research Scietist in Korea – Large-eddy simulations and implementation of unified convection parameterization in the NASA GISS climate model
- Dr. Jana Kolassa (2014–2015) now Research Scientist at NASA – Soil moisture retrieval from multiple satellite product
- Dr. Alexis Berg (2012 –2013) now Research Scientist at Princeton University – Soil moisture and precipitation feedbacks
- Dr. Nicolas Rochetin (2012 –2013) now Research Scientist at Météo France – Radiative Convective Equilibrium over land

Doctor of Philosophy (Environmental Engineering)

- Adam Massmann (2016 –) Land-atmosphere feedback on mesoscale storms
- Yu Cheng (2014 –) Heterogeneity in turbulence
- Julia Green (2013 –) Ecophysiological control of plants on convection over the Amazon
- Daniel Kennedy (2013 –) Vegetation water content and plant hydraulics

- Léo Lemordant (2012 – expected Sept. 2017) Carbon feedbacks on the surface hydrologic cycle and land-atmosphere interactions
- Marceau Guérin (2011 – expected Sept. 2017) Survival strategies to droughts

Master Students

- Anais Chhang (summer 2014) Estimating evaporation using weather station data
- Alix Garelli (summer 2015) Interaction between cold pools and surface fluxes
- Felix Camus (summer 2016) Drought in the Amazon and El Niño
- Brahim Khalid (summer 2016) Organization of Mesoscale Convective Systems globally

EXTERNAL EXAMINER FOR PHD DISSERATIONS

PhD examination committees in Columbia SEAS Departments:

Earth and Environmental Engineering

- John Feighery (2013)
- Mengquian Lu (2014)

Civil and Environmental Engineering

- Daniel Marasco (2014)
- Raha Hakimdavar (2016)