

**Education:**

- 2024 (exp.) PhD Civil Engineering, University of Massachusetts, Amherst MA  
 2018 Ba&Sc (Hons) Interfaculty Environment (1<sup>st</sup> class), McGill University, Montreal QC

**Honors & awards:**

- 2021-2024 NASA Future Investigators in Earth, Space Science & Technology Award (\$135k)  
 2023 University of Massachusetts College of Engineering Teaching Fellow Award (\$2.5k)  
 2021 AGU Hydrology Remote Sensing Technical Committee Presentation Award (\$100)  
 2020 AGU Outstanding Student Presentation Award (\$150)  
 2020 NSF Graduate Research Fellowship Honorable Mention  
 2017 McGill University Science Undergraduate Research Award (\$4.8k)  
 2017 Oklahoma State University REU Award (\$3k- declined)

**Refereed publications:** (first/co authorship: 4/9)

13. Riggs RM, Allen GH, BRINKERHOFF CB, Sikder MD, Wang J (2023). Turning lakes into river gauges using the LakeFlow algorithm. *Geophysical Research Letters*. [doi.org/10.1029/2023GL103924](https://doi.org/10.1029/2023GL103924).
12. Durand M, Gleason CJ, Pavelsky TM, Frasson RPM., Turmon M, David CH, Altenau EH, Tebaldi N, Larnier K, Monnier J, Malaterre PO, Oubanas H, Allen GH, Astifan B, BRINKERHOFF CB, Bates PD, Bjerklie, D, Coss S, Dudley R, Fenoglio L, Garambois PA, Getirana A, Lin P, Margulis SA, Matte P, Minear JT, Muhebwa A, Pan M, Peters D, Riggs R, Safat Sikder MD, Simmons T, Stuurman C, Taneja J, Tarpanelli A, Schulze K, Tourian MJ, Wang J (2023). A framework for estimating global river discharge from the Surface Water and Ocean Topography satellite mission. *Water Resources Research*. [doi.org/10.1029/2021WR031614](https://doi.org/10.1029/2021WR031614).
11. Lin P, Feng D, Gleason CJ, Pan M, BRINKERHOFF CB, Yang X, Beck HE, Frasson RPM (2023). Inversion of river discharge from remotely sensed river widths: a critical assessment at three-thousand global river gauges. *Remote Sensing of Environment*. [doi.org/10.1016/j.rse.2023.113489](https://doi.org/10.1016/j.rse.2023.113489).
10. Maavara T, BRINKERHOFF CB, Hosen J, Aho KS, Logozzo L, Saiers J, Stubbins A, Raymond PA (2023). Watershed DOC uptake occurs mostly in lakes in the summer and in rivers in the winter. *Limnology & Oceanography*. [doi.org/10.1002/lno.12306](https://doi.org/10.1002/lno.12306).
9. BRINKERHOFF CB, Gleason CJ, Zappa CJ, Raymond PA, Harlan ME (2022). Remotely sensing river greenhouse gas exchange velocity using the SWOT satellite. *Global Biogeochemical Cycles*. [doi.org/10.1029/2022GB007419](https://doi.org/10.1029/2022GB007419).
8. Liu S, Maavara T, BRINKERHOFF CB, Raymond PA (2022). Global controls on DOC reaction versus export in watersheds: A Damköhler number analysis. *Global Biogeochemical Cycles*. [doi.org/10.1029/2021GB007278](https://doi.org/10.1029/2021GB007278).
7. Liu S, Kuhn C, Amatulli G, Aho KS, Butman D, Allen GH, Lin P, Pan M, Yamazaki D, BRINKERHOFF CB, Gleason CJ, Xia X, Raymond PA (2022). The importance of hydrology in routing terrestrial carbon to the atmosphere via global streams and rivers. *Proceedings of the National Academy of Sciences*. [doi.org/10.1073/pnas.2106322119](https://doi.org/10.1073/pnas.2106322119).
  - Nature press release: [The world's rivers exhale a massive amount of carbon](#)
  - Yale University press release: [Calculating terrestrial carbon's role in river and stream emissions](#)

6. Maavara T, Logozzo L, Stubbins A, Aho KA, BRINKERHOFF CB, Hosen J, Raymond PA (2021) Does photomineralization of dissolved organics matter in temperate rivers? *Journal of Geophysical Research- Biogeosciences*. [doi.org/10.1029/2021JG006402](https://doi.org/10.1029/2021JG006402).
5. Frasson RPM, Durand MT, Larnier K, Gleason CJ, Andreadis KM, Hagemann MH, Dudley RW, Bjerklie DM, Oubanas H, Garambois PA, Malaterre PO, Lin P, Pavelsky TM, Monnier J, BRINKERHOFF CB, David CH (2021). Exploring the factors controlling the error characteristics of the Surface Water and Ocean Topography mission discharge estimates. *Water Resources Research*. [doi.org/10.1029/2020WR028519](https://doi.org/10.1029/2020WR028519).
4. BRINKERHOFF CB, Raymond PA, Maavara T, Ishitsuka I, Aho KS, Gleason CJ (2021). Lake morphometry and river network controls on evasion of terrestrially sourced headwater CO<sub>2</sub>. *Geophysical Research Letters*. [doi.org/10.1029/2020GL090068](https://doi.org/10.1029/2020GL090068).
3. BRINKERHOFF CB, Gleason CJ, Feng D, Lin P (2020). Constraining remote river discharge estimation using reach-scale geomorphology. *Water Resources Research*. [doi.org/10.1029/2020WR027949](https://doi.org/10.1029/2020WR027949).
2. Andreadis KM, BRINKERHOFF CB, & Gleason CJ (2020). Constraining the assimilation of SWOT observations with hydraulic geometry relations. *Water Resources Research*. [doi.org/10.1029/2019WR026611](https://doi.org/10.1029/2019WR026611).
1. BRINKERHOFF CB, Gleason CJ, & Ostendorf DW (2019). Reconciling at-a-station and at many stations hydraulic geometry through river-wide geomorphology. *Geophysical Research Letters*. [doi.org/10.1029/2019GL084529](https://doi.org/10.1029/2019GL084529).

**Grants & fellowships:** (total awarded: \$135k)

2021-2024      A first global analysis of daily riverine gas exchange using the SWOT satellite, Bayesian remote sensing, and carbon transport modeling. *NASA FINESST Fellowship (80NSSC21K1591)*. \$135k. As sole author and fellowship awardee.

**Conference presentations:**

19 presentations at national/international meetings, i.e. AGU, FIHM/WaterSciCon, SWOT ST Meetings

1 invited

5 oral

2 posters

11 co-author

Full bibliography available on request

**Invited seminars:**

2023              Northeastern University (*virtual*)  
 2022              SWOT Discharge Algorithm Working Group (*virtual*)  
 2022              Harvard University (*Cambridge, MA*)  
 2020              University of Massachusetts (*Amherst, MA*)

**Teaching:**

2023              Instructor of record      ENG-FYS 191: Engineering rivers and ecosystems (UMass)  
 2019              Teaching assistant      ENG-CEE 470/570: GIS for Engineers (UMass)

**Service & outreach:**

Referee      *Remote Sensing of Environment, Biogeosciences, Journal of Hydrology, Journal of Hydraulic Engineering, Nature Scientific Reports* (n=5, [Record available on ORCID](#))

Member      NASA/CNES SWOT Mission Discharge Algorithm Working Group

Developer    Maintainer and developer of the [geoBAMr](#) and [BIKER](#) community R packages

  

2021          “Rivers’ role in the carbon cycle”, Wooster Society of Friends

**Professional societies & certifications:**

Certification    CIRTl associate ([Center for the Integration of Research, Teaching, and Learning](#)) in evidence-based teaching

Member          American Geophysical Union

Member          Association for the Sciences of Limnology and Oceanography