Curriculum Vitae

Anshuman Swain

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Education:

2017-2022	Doctor of Philosophy (Ph.D.) in Biological Sciences (Advisor: William F Fagan) University of Maryland, College Park, MD 20742, USA Dissertation: How resource availability, information flow, and targeted interactions shape eco-evolutionary processes in microbial organisms across scale
2017-2022	Graduate certification in (1) Computation and Mathematics for Biological Networks and (2) University Teaching and Learning Program University of Maryland, College Park, MD 20742, USA
2013-2017	Bachelor of Science (Research) with Distinction; Physics (major) and Biology (minor) Indian Institute of Science (IISc), Bangalore, Karnataka, India-560012 Thesis: A Study on the Formation of Protocellular Structures and Features on Early Earth

Academic Appointments:

2025-	Assistant Professor, Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor, MI
2025-	Assistant Curator, Museum of Paleontology, University of Michigan, Ann Arbor, MI
2022-	Research Associate, Smithsonian National Museum of Natural History, Washington D.C.

Fellowships, honors and awards:

2022-2025	Junior Fellow at the Harvard Society of Fellows
2022-2024	James S. McDonnell Foundation (JSMF) Postdoctoral Fellow, Department of Organismic and Evolutionary Biology (OEB) and Museum of Comparative Zoology (MCZ), Harvard University, Cambridge, MA
2023	University of Maryland Charles A. Caramello Distinguished Dissertation Award (for the best dissertation in Biological and Life Sciences in 2022)
2022	University of Maryland Ann G. Wylie Dissertation Fellowship
2021	University of Maryland College of Computer, Mathematical, and Natural Sciences (CMNS) Board of Visitors Endowed Fellowship
2017-2021	University of Maryland CMNS Dean's Fellowship
2020	University of Maryland Behavior, Ecology, Evolution and Systematics Research Award
2020	University of Maryland Phi Delta Gamma Graduate Fellowship for interdisciplinary scholarship achievement

2019 University of Maryland Amit and Ruchi Mehta Graduate Research Award for outstanding research and service for the broader international community

2020 Ecological Society of America (ESA) Volterra Award Honorable mention (Theoretical Ecology Section)

2019 Paleontological Society's Future Leaders in Paleontology (special session at the Geological Society of America Meeting 2019, USA)

2019 Devra G. Kleiman Memorial Graduate Scholarship for conservation biology

2018 National Science Foundation - COmputation and Mathematics for Biological Networks (NSF-COMBINE) Fellowship at the University of Maryland

2016 Deutscher Akademischer Austauschdienst (DAAD) WISE (Working Internships in Science and Engineering) Fellowship (awarded to top STEM Indian undergraduates to do short-term research at German public universities)

2011 Kishore Vaigyanik Protsahan Yojana (KVPY) Scholarship (Stream SA), Govt. of India (Fellowship awarded to top 250 high school students in India in 2011)

2009 National Talent Search (NTS) Scholarship, Govt. of India (Fellowship awarded to top 500 high school students in India in 2009)

Funded Grants and Workshops:

2025 The International Ocean Drilling Programme Scientific Projects using Ocean Drilling Archives (SPARC) Award: "ExploratioN Into a Global early Miocene Anomaly (ENIGMA)" (€ 300000) (co-contributor)

2024 Harvard William F. Milton Fund: "Deciphering the Future by Investigating the Past: Understanding Climate Change Impacts on Marine Ecosystems" ($60000)

2023 Santa Fe Institute (SFI) Working Group: "Micropaleoecology, climate crises and extinctions" ($15000)

2023 Santa Fe Institute (SFI) Working Group: "Scaling in protein network properties" ($2000)

2022-2024 German Centre for Integrative Biodiversity Research (iDiv) synthesis center Early Career Researcher working group titled "Motifs supporting Stability of Ecosystem services" (€ 35000)

2022 Santa Fe Institute (SFI) Working Group: "CodNet: How Do Individual Traits and Sexual Networks Shape Population Dynamics?" ($15000)

2020-2021 Universitas 21 Graduate Collaborative Research Grant for international interdisciplinary collaboration ($3000)

2020 Young Researchers of the Complex Systems Society (yrCSS) Bridge Grant (2020) for interdisciplinary research ($1000)

Peer reviewed publications:

(Published/In Press)

1. S Y Chia, **A Swain**, N Josephs, L Lin, and W F Fagan, "Birds that don't exist: niche pre-emption as a constraint on morphological evolution in the Passeroidea", ***Ecology Letters*** (accepted, December 2025)
2. W F Fagan, et al., "Wild canids and felids differ in their reliance on travel routeways", ***Proceedings of the National Academy of Sciences of the USA*** 122 (40) e2401042122 (2025)
3. E Larina, A Woodhouse, **A Swain**, C Lowery, R Martindale, and C Myers, "Regional restructuring in planktic foraminifera communities through Pliocene-early Pleistocene climate variability", ***Nature Communications*** 16:5056 (2025)
4. A K Das, S K Mohapatra, B Tripathy, **A Swain**, and A Mohapatra, "Do Olive Ridley turtles select mates based on size? An Investigation of mate size preference at major arribada rookery", ***Ecosphere*** 6(4), e70264 (2025)
5. A Woodhouse*, **A Swain***, J A Smith*, E C Sibert*, A R Lam*, J A Dunne*, and A Auderset*, "Micropaleoecology in a changing world: Combining microfossils and paleoenvironmental proxies provides unique insights into ecological response to global change" ***Ecology and Evolution*** 14(11), e70470 (2024) (*all authors contributed equally)
6. S K Mohapatra*, **A Swain***, D Ray, R K Behera, B Acharya, J K Seth, and A Mohapatra, "Niche partitioning and host specialisation in fish-parasitizing isopods: trait-dependent patterns from three ecosystems on the east coast of India" ***Ecology and Evolution*** 14(9), e70298 (2024) (*equal contributions)
7. R J Knecht*, J S Benner*, **A Swain**, L E Azevedo-Schmidt, C J Cleal, C C Labandeira, M S Engel, J A Dunlop, P A Selden, C F Eble, M D Renczkowski, D A Wheeler[#], M M Funderburk[#], A H Knoll, and N E Pierce, "Early Pennsylvanian Lagerstätte reveals an exceptionally diverse ecosystem on a subhumid, alluvial fan" ***Nature Communications*** 15:7876 (2024) (*equal contributions) ([#]Undergraduate mentee)
8. **A Swain**, A J Kaufman, M Kalinowski[#], S A Yaarwood, and W F Fagan, "Were Neoarchean atmospheric methane hazes and early Paleoproterozoic glaciations driven by the rise of oxygen in surface environments?" ***Earth and Planetary Science Letters*** 643:118900 (2024) ([#]Undergraduate mentee)
9. **A Swain***, L E Azevedo-Schmidt*, S A Maccraken, E D Currano, E K Meineke, N E Pierce, W F Fagan, and C C Labandeira, "Temperature and insect herbivory: Integrating insights from paleo- and modern ecology", ***The American Naturalist*** (2024) (*equal contributions)
10. K Savi, B Pandey, **A Swain**, J Lim, D Callo-Concha, G R Azondekon, M Wahjib, and C Borgemeister, "Urbanization and malaria have a contextual relationship in endemic areas: a temporal and spatial study", ***PLoS Global Public Health*** 4(5): e0002871 (2024)
11. S K Mohapatra, **A Swain**, S Roy, B Tripathy, A Mohapatra, and J K Seth, "Low diversity, high dominance, and high host prevalence of parasitic isopods of the family Cymothoidae in Chilika lagoon, India: a comparative study between a semi-enclosed ecosystem and its adjoining open region", ***Parasitology Research*** 123(4), 1-6 (2024)

12. **A Swain***, A Woodhouse*, W F Fagan, A J Fraass, and C M Lowery, "Biogeographic response of marine plankton to Cenozoic environmental changes", ***Nature*** (2024) (*equal contributions)
13. R J Knecht, **A Swain**, J S Benner, S L Emma, N E Pierce, and C C Labandeira, "Endophytic ancestors of modern leaf miners may have evolved in the Late Carboniferous", ***New Phytologist*** (2023)
14. **A Swain**, "Drivers of herbivore diversity decoupled by leveraging the fossil record", ***Proceedings of the National Academy of Sciences of the USA*** 120 (34) e2311010120 (2023)
15. L E Azevedo-Schmidt, **A Swain**, L Shoemaker, and E D Currano, "Landscape-level variability and insect herbivore outbreak captured within modern forests provides a framework for interpreting the fossil record", ***Scientific Reports*** 13, 9701 (2023)
16. A Woodhouse*, **A Swain***, W F Fagan, A J Fraass, and C M Lowery, "Late Cenozoic climate cooling restructured global marine microplankton ecological communities", ***Nature*** 614, pp. 713–718 (*equal contributions) (2023)
17. **A Swain**, L E Azevedo-Schmidt, S A Maccraken, E D Currano, J Dunne, C C Labandeira and W F Fagan, "Effects of sampling bias on robustness of ecological metrics of plant-damage type association networks", ***Ecology*** e3922 (2023).
18. **A Swain**, M Shofner, W F Fagan, and G Marbach-Ad, "Exploring the impact of peer-to-peer interactions on learning and course performance in an online environment", ***Journal of Science Education and Technology*** (2022)
19. W F Fagan, **A Swain**, A Banerjee, H Ranade[#], P Thompson[#], P Staniczenko, B Flynn, J Hungerford, and S Hurwitz, "Quantifying Interdependencies in Geyser Eruptions at the Upper Geyser Basin, Yellowstone National Park", ***Journal of Geophysical Research: Solid Earth***, 127, e2021JB023749 (2022). ([#]Undergraduate mentee)
20. D Rappaport, **A Swain**, W F Fagan, R Dubayah and D C Morton, "Animal soundscapes reveal key markers of Amazon Forest degradation from fire and logging", ***Proceedings of the National Academy of Sciences of the USA*** 119(18) (2022).
21. **A Swain***, S Williams*, L J Di Felice* and E A Hobson "Interactions and information: Exploring task allocation in ant colonies using network analysis", ***Animal Behaviour***, 189, pp.69-81 (2022) (*equal contributions)
22. B J Klein*, **A Swain***, T Byrum[#], S V Scarpino and W F Fagan, "Exploring noise, degeneracy and determinism in biological networks with the `einet` package", ***Methods in Ecology and Evolution***, 13(4), pp.799-804 (2022) (*equal contributions, [#]Undergraduate mentee)
23. **A Swain*,** L Fussell* and W F Fagan, "Higher-order effects, continuous species interactions, and trait evolution shape microbial spatial dynamics", ***Proceedings of the National Academy of Sciences of the USA*** 119(1) (2022). (*equal contributions)
24. B Klein, E Hoel, **A Swain**, R Grebenow and M Levin, "Evolution and emergence: higher order information structure in protein interactomes across the tree of life". ***Integrative Biology***, 13(12), pp.283-294 (2021).

25. B J Klein, L Holmer, K M Smith, M M Johnson, **A Swain**, L Stolp, A I Teufel and A S Kleppe, "A computational exploration of resilience and evolvability of protein–protein interaction networks." ***Communications Biology*** 4(1): pp. 1-11. (2021)
26. E D Currano, L E Azevedo-Schmidt*, S A Maccracken* and **A Swain***, "Scars on fossil leaves: An exploration of ecological patterns in plant–insect herbivore associations during the Age of Angiosperms" ***Palaeogeography, Palaeoclimatology, Palaeoecology***: 110636 (2021) (*equal contributions)
27. **A Swain***, T Hoffman*#, K Leyba and W F Fagan, "Exploring the evolution of perception: An agent-based approach" ***Frontiers in Ecology and Evolution*** 9, p.457. (2021) (*equal contributions, #Undergraduate mentee)
28. **A Swain**, S A Maccraken, W F Fagan and C C Labandeira, "Understanding the ecology of host plant–insect herbivore interactions in the fossil record through bipartite networks". ***Paleobiology***, pp. 1-22 (2021)
29. **A Swain**, M Devereux, & W F Fagan (2021). Deciphering trophic interactions in a mid-Cambrian assemblage. ***iScience*****,** 102271.
30. J Shaw, K Wootton, E Coco, D Daems, A Gillreath-Brown, **A Swain** and J Dunne, "Disentangling ecological and taphonomic signals in ancient food webs", ***Paleobiology***, pp. 1–17. (2021)
31. Z Ren*, N Martyniuk*, I A Olesky*, **A Swain*** and S Hotaling, "Ecological stoichiometry of the mountain cryosphere", ***Frontiers in Ecology and Evolution***, Volume 7:360 (2019) (*equal contributions)
32. **A Swain** and W F Fagan, "Group size and decision-making: Experimental evidence for Minority Games in fish behavior", ***Animal Behaviour***, Volume 155, pp. 9-19 (2019)
33. **A Swain** and W F Fagan, "A mathematical model of the Warburg Effect: Effects of cell size, shape and substrate availability on growth and metabolism in bacteria", ***Mathematical Biosciences and Engineering***, Volume 16 (1), pp. 168-186 (2019)
34. **A Swain** and S Chatterjee. "A new formulation for determination of the Competition Coefficient in multispecies interaction for Lotka-Volterra type competition models", ***Current Science***, Volume 112 (9), pp. 1920-1926 (2017)

(Under review)

1. C Jouault, **A Swain**, and C Sosiak, "Diversity-dependence effects influenced the diversification of species-rich crown ant subfamilies during the Cenozoic"
2. S K Mohapatra, S Nayak, G Triphathy, S Padhy, A K Das, J K Seth, A Mohapatra, and **A Swain**, "Spatial Niche Partitioning of three sympatric *Ocypode* Species on river mouth sandspits along the Eastern Coast of India"
3. R Rabideau Childers et al., "Day versus night and the evolution of sexual dimorphism in Lepidoptera"

4. **A Swain***, S R Mohanty*, A K Das*, K Wootton, L Van Kleunen, S K Mohapatra, S Acharya, R K Patel, C White, R K Behera, U Brose, L Dee, and A K Mohapatra, "How a Tropical Food Web Weathers the Monsoon and What It Means for the People"
5. G Galli, **A Swain**, A Woodhouse, A Leventer, A Spiridonov, R Stankevič, K Yoo, S Jeong, S Brachfeld, S Ishman, S Moretti, and C Morigi, "A paleoecological test of the Food Bank Hypothesis reveals millennial-scale resilience in the Antarctic benthic ecosystem"
6. C Jouault, **A Swain**, V Bouju, B Wang, V Perrichot, F Legendre, and F Condamine, "A time scale for the origin and extinction of major ant lineages based on Bayesian modelling of the fossil record"
7. L Laborieux, R J Knecht, W F Fagan, N J Sanders, and **A Swain**, "Phylogeny, ecology, and allometry: hierarchical controls of insect elemental composition"
8. L R Heinrich, A C Martins, S Bossert, A C Hughes, M C Orr, K C Seltmann, **A Swain**, and T Vasconcelos, "Sociality and nesting strategy shape the bimodal diversity gradient in bees"

Teaching and Mentoring Experience:

2025- Taught Principles of Ecology (EEB 548)

2017-2022 University Teaching and Learning Program (UTLP) Scholar (University Graduate Certificate Program) at the Teaching and Learning Transformation center (TLTC), University of Maryland, College Park, MD, USA (UMD) (Undertook education courses, workshops; designed course materials, and structures; and performed IRB accredited teaching-as-research project intended for scholarly publication)

2017-2022 Teaching Assistant for the following courses:

1. BSCI 361 (Principles of Ecology): 6 semesters (UMD, USA)
2. MATH 135 (Discrete Mathematics for Life Sciences): 2 semesters (UMD, USA)
3. MATH 131 (Calculus for Life Sciences II): 1 semester (UMD, USA)
4. MATH 130 (Calculus for Life Sciences I): 1 semester (UMD, USA)
5. UES 307 (Introduction to Solid Earth): 2 semesters (IISc, India)
6. UE 200 (Earth and its environment): 2 semesters (IISc, India)

2018-2023 Mentored 6 graduate students, 25 undergraduates and 2 high school students for research on topics in community ecology, statistical modeling, paleobiology and network science.

2023 Lecturer for the Evolutionary Biology Crash Course (designed for training students from the Global South; had over 1600 registered students) in Paleobiology and Macroevolution.

Invited Talks:

1. Ecology and Evolutionary Biology Seminar, University of Wyoming, Laramie, WY; 13 Nov 2025
2. Center for Complex Systems, University of Michigan, Ann Arbor, MI; 11 Nov 2025
3. Institute for Global Change Biology, University of Michigan, Ann Arbor, MI; 14 Apr 2025
4. Estuarine Biology Regional Centre, Zoological Survey of India, Odisha, India; 10 Jan 2025

5. P.G. Department of Zoology, Berhampur University, Odisha, India; 09 Jan 2025
6. Paleobiology Seminar, Smithsonian National Museum of Natural History, Washington DC; 10 Oct 2024
7. Department of Geology Colloquium, University of Maryland, College Park, MD; 13 Sep 2024
8. Mathematical Biology Seminar Series, Department of Mathematics, University of Maryland, College Park, MD; 10 Sep 2024
9. "Environmental Crises and Systems Collapse" Course, Harvard University, Cambridge, MA; 06 Aug 2024
10. iDiv Seminar Series, iDiv, Leipzig, Germany; 05 June, 2024
11. Condensed Matter Theory Seminar, Department of Physics, Harvard University, Cambridge, MA; 14 Nov 2023
12. American Society of Naturalists Vice-Presidential Symposium, Evolution, Albuquerque, NM; 23 June 2023
13. Denver Museum of Nature and Science, Denver, CO, USA; 19 June 2023
14. Cambridge Entomological Club, Cambridge, MA, USA; 14 March 2023
15. Theory Tea, Department of Ecology and Evolutionary Biology, Princeton University, Princeton, NJ, USA; 22 Feb 2023
16. Physics of Living Systems at Massachusetts Institute of Technology (MIT), Cambridge, MA, USA; 3 Feb 2023
17. The Institute of Mathematical Sciences (IMSc), Chennai, Tamil Nadu, India; 6 Jan 2023
18. Estuarine Biology Regional Centre, Zoological Survey of India, Odisha, India; 21 Nov 2022
19. Santa Fe Institute, Santa Fe, NM, USA; 19 Oct 2022
20. Parsons seminar series, Massachusetts Institute of Technology (MIT) Civil and Environmental Engineering, Cambridge, MA, USA; 7 Oct 2022
21. Animal Behavior seminar, The State University of New York College of Environmental Science and Forestry, 14 Sep 2022
22. Gordon Research Conference (GRC) - Unifying Ecology Across Scales, Southern New Hampshire University, 4 Aug 2022
23. Society of Young Network Scientists (SYNS) Paper Unwind, NetSci 2022, 16 July 2022
24. Museum of Comparative Zoology (MCZ) seminar, Harvard University, Cambridge, MA, USA; 22 November 2021
25. Hobson Lab, Department of Biological Sciences, University of Cincinnati, Cincinnati, OH, USA; 17 December 2020
26. Grad Terp Exchange (Research talks for General Public), University of Maryland, College Park,MD, USA; 01 October 2020
27. Center for Bioinformatics and Computational Biology Undergrad Summer Internship Program, University of Maryland, College Park, MD, USA; 24 July 2019
28. Indian Institute of Science Education and Research (IISER), Berhampur, India; 21 June 2018
29. Centre for Earth Sciences (CEaS), Indian Institute of Science (IISc), Bangalore, India; 13 June 2018

30. Centre for Ecological Sciences (CES), Indian Institute of Science (IISc), Bangalore, India; 8 June 2018

Contributed talks:

1. R J Knecht, **A Swain**, J S Benner, C C Labandeira, M S Engel, C F Eble, A H Knoll, and N E Pierce; Geological Society of America (GSA) Connects 2023 (Annual Meeting), Pittsburg, Pennsylvania, USA; Oct 16, 2023, "Ecological Analysis of a Mixed Wetland-to-Xeromorphic Plant Assemblage and Associated Arthropod Damage in the Bashkirian of New England"
2. **A Swain***, A Woodhouse*, W F Fagan, A J Fraass, and C M Lowery; Geological Society of America (GSA) Connects 2022 (Annual Meeting), Denver, Colorado, USA; Oct 11, 2022, "Network analysis of the marine micropaleontological record (Part I): Global marine microplankton community structure responses to Cenozoic climate development"
3. **A Swain**, S A Maccracken, L Azevedo-Schmidt, E Currano, C C Labandeira and W F Fagan; G; Geological Society of America (GSA) Connects 2021 (Annual Meeting), Portland, Oregon, USA; Oct 13, 2021, "Effects of sampling bias on robustness of ecological metrics of fossil plant-damage type association networks"
4. **A Swain**, L Fussell and W F Fagan, Ecological Society of America (ESA) 2021 Annual Meeting (online); Aug 4, 2021, "Leaf contours delineate genetic control of leaf shape and predict ecological traits of trees"
5. **A Swain**, S A Maccracken, L Azevedo-Schmidt, E Currano, C C Labandeira and W F Fagan; Networks 2021 (online); July 7, 2021, "Understanding plant–herbivore interactions in the fossil record"
6. D Rappaport, **A Swain**, J LeBien, M Campos-Cerqueira, T M Aide, D C Morton, and W F Fagan; American Geophysical Union (AGU) Fall Meeting 2020 (online); 11 December 2020, "Ecoacoustic recordings capture animal population and community changes over time"
7. **A Swain**, S A Maccracken, W F Fagan and C C Labandeira, Geological Society of America (GSA) 2020 Annual Meeting (online); 28 October 2020, "Exploring the ecology of host plant-insect herbivore interactions in fossil record through bipartite networks"
8. **A Swain**, M Shofner and G Marbach-Ad, Network Science and Education Symposium (NetSciEd) 2020 (online); 27 October 2020, "Exploring the impact of peer-to-peer interactions on learning and course performance in an online environment"
9. **A Swain**, L Fussell and W F Fagan, Ecological Society of America (ESA) 2020 Annual Meeting (online); 3 August 2020, "Exploring microbial community dynamics as a species continuum" ('Honorable Mention' for the ESA Theoretical Ecology Volterra Award)
10. T Hoffman[#], **A Swain**, K Leyba and W F Fagan, Ecological Society of America (ESA) 2020 Annual Meeting (online); 3 August 2020, "Perceptual evolution: How the spatially explicit interplay of biological and environmental factors shapes resource uptake" ([#]Undergraduate mentee)
11. **A Swain**, N J Butterfield, M Devereux and W F Fagan, Geological Society of America (GSA) 2019 Annual Meeting, Phoenix, Arizona, USA; 22 September 2019, "Understanding ecological interactions in a mid-Cambrian ecosystem using network analysis" (Selected for 'Future leaders in Paleontology' special session by the Paleontological Society)

12. **A Swain**, M Devereux and W F Fagan, Graduate Research Appreciation Day (GRAD) 2019 University of Maryland, College Park; 3 April 2019; "Understanding Community Structure and Assembly in a Mid-Cambrian Ecosystem using Network Analysis" *(Best Presentation Award, 2nd)*
13. **A Swain** and W F Fagan. Ecological Society of America (ESA) 2018 Annual Meeting, New Orleans, USA; 8 August 2018, "Group size and decision-making: Experimental evidence for Minority Games in fish behavior"

Contributed posters:

1. **A Swain**, M Devereux and W F Fagan, Bioscience Day 2019, University of Maryland, College Park; 12 November 2019, "Deciphering trophic interactions in a mid-Cambrian assemblage" *(Best Poster Award)*
2. **A Swain** and W F Fagan, Bioscience Day 2018, University of Maryland, College Park; 13 November 2018, "A mathematical model of the Warburg Effect" *(Best Poster Award)*
3. **A Swain** and W F Fagan, Microbial Eco-Evo Dynamics Symposium 2018, IGC, Oeiras, Portugal; 22-24 October 2018, "A mathematical model of the Warburg Effect"
4. **A Swain** and W F Fagan, Biology for Butterflies 2018 Conference, NCBS, Bangalore, India; 11-14 June 2018; "The tale of two pairs: functional convergence for thermoregulation in *Polyommatus* butterflies"

Other Experiences:

Leadership and Service:	Editorial Board Member, *Advances in Complex Systems* Elected Board member, Young Researchers in Complex Systems Society (yrCSS) (2021-2023); Served on two departmental hiring committees at UMD; Served on 7 UMD Research Program and Graduate Student Organization committees; Judge and mentor for various high-school and undergraduate incentives. Reviewer for 19 journals, (*PNAS*, *Nature Ecology and Evolution, Nature Communications, PLoS Biology, Communications Biology, Ecology, Botanical Journal of the Linnean Society, Earth Science Informatics, Journal of Paleontology, Frontiers in Ecology and Evolution, Frontiers in Earth Science, PLoS Computational Biology, iScience, npj Complexity, Ecology and Evolution, Integrative and Comparative Biology, Gut Micorbes, Mathematical Biology & Engineering, Journal of Sustainable Forestry*) and three conferences (*Conference on Complex Systems (CCS), NetSci* and *NetSciX*)
Organizing and Public outreach:	Co-organized international online workshop series "Network Epidemiology in the time of Coronavirus" (Net-COVID), in association with the NSF-COMBINE program (UMD) and the University of Vermont Complex Systems Center (2020); 5 Public lectures on use of complex systems to solve environmental and biological problems; Co-organized two university level "Data Science Career and Internship

	Fairs" to connect graduate students and industry (2019); Participating researcher in 'Skype a Scientist' sessions, discussing science with schoolkids; Part of two organizing committees for Maryland Day (public science outreach); Odia translation of 'Complexity Explained'
Research Workshops:	Planktonic Foraminiferal Biostratigraphy and Taxonomy Workshop 2024, Amherst MA, USA Winter Workshop on Complex Systems (WWCS) 2020, Gruyere, Switzerland; Complex Networks Winter Workshop (CNWW) 2019, Quebec City, Canada; Woodstoich 4, 2019, Flathead Lake Biological Station, University of Montana, MT, USA (workshop on emerging problems in biological/ecological stoichiometry; held every 5 years); Santa Fe Complex Systems Summer School (SFI-CSSS) 2019, Santa Fe Institute (SFI), NM, USA
Miscellaneous Mentorship	Team leader (chief coach) for Indian team at IOL (International Linguistics Olympiad) 2016, Mysore (India) and IOL 2017, Dublin (Ireland); Part of the Training team, Problem Committee and Jury at the Indian National Linguistics camp (Panini Linguistics Olympiad, PLO) 2015-19 which functions to train and select the national team to represent India at the International Linguistics Olympiad (IOL); Educational Training for underprivileged kids in Karnataka, India (2013-16)