

DAN LI

Areas of Specialty: philosophy of science
(climate science, machine learning, network science)

Email: dli1@iu.edu
<https://orcid.org/0000-0002-5745-9838>

Areas of Competence: feminism, general philosophy of science, history of science

EMPLOYMENT

2023 Fall	Assistant professor in Philosophy	Baruch College, CUNY
-----------	-----------------------------------	----------------------

EDUCATION

2023	Dual Ph.D. Dept. of History and Philosophy of Science (<u>Major</u> : Philosophy of Science); Dept. of Informatics (<u>Major</u> : Complex Networks and Systems); Dept. of Earth and Atmospheric Sciences (Minor: Earth and Atmospheric Sciences) Joint Dissertation: “Frontiers in Climate Science: inquiries into data and methods” Committee: Elisabeth Lloyd (HPS); Amit Hagar (HPS); Ben Kravitz (EAS); Travis O’Brien (EAS); Alessandro Flammini (CNS); Filippo Radicchi (CNS)	Indiana University (Bloomington, IN)
2018	M.S. Dept. of Philosophy (<u>Major</u> : History of Science)	Peking University (Beijing, China)
2014	B.Eng. School of Mechanical Engineering (<u>Major</u> : Thermal Science and Energy Engineering)	University of Science and Technology of China (Hefei, China)

PUBLICATIONS**Journal Papers Published**

2023	Machines learn better with better data ontology. <i>Minds & Machines</i> . In press.
2022	If a tree grows no ring and no one is around: how scientists deal with missing tree rings. <i>Climatic Change</i> 174 , 6. DOI: 10.1007/s10584-022-03424-w
	O’Loughlin, R., <u>Li, D.</u> Model robustness in economics: the admissibility and evaluation of tractability assumptions. <i>Synthese</i> , 200 , 23. DOI: 10.1007/s11229-022-03608-y

HONORS AND AWARDS

2022	Mikal Lynn Sousa Award for Excellence in Graduate Scholarship
2021	Norwood Russell Hanson Prize for Outstanding Grad Student Papers

GRANTS AND FELLOWSHIPS

2021-22	B.E. Covalt Memorial Fellowship
2020-22	COAS NSF Interdisciplinary Research Training Fellowship Informatics Graduate Support Fellowship & Travel Award
2019-20	Irving & Leno Lo Scholarship
2018-19	COAS Graduate Scholars Fellowship & Travel Award

REFEREED PRESENTATIONS (*CONTRIBUTED; **POSTERS)

2021	*- and O’Loughlin, R., “Tractability Assumptions, Holism, and Model Robustness,” Philosophy of Science Association 27 th Biennial Meeting (2020/2021), Nov. 11-14, 2021, PAPERID-PSA2020668. “Some Models are Universal and Rare: does “universality” make a difference?,” The 8 th Biennial meeting of the European Philosophy of Science Association, Sept. 15-18, 2021
------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- ** “The Missing Link in Inferences with Climate Networks”, Philosophy of Science Association 27th Biennial Meeting (2020/2021), Nov. 11-14, 2021, PAPERID-PSA20201062.
- ** “If A Tree Grows No Rings and No One is Around: how scientists deal with missing tree rings,” Philosophy of Science Association 27th Biennial Meeting (2020/2021), Nov. 11-14, 2021, PAPERID-PSA2020956. [[video abstract](#)]
- ** “Can We Infer the Absolute Timescale from Paleoclimate data? –lessons from paleoclimatology,” (with Ryan O’Loughlin), Boston University Philosophy Grad Conference, April 22nd-23rd, 2021. Held virtually.
- 2019 - and O’Loughlin, R., “Tractability Assumptions, Holism, and Model Robustness,” IU HPSC Women’s Leadership Conference, October 26th, 2019. [[recording](#)]
- 2017 “The Medicalization of Premenstrual Syndrome,” 9th Meeting of International Society for the History of Medicine, September 2017.

INVITED TALKS

- 2023 “Machines learn better with better data ontology”
- Philosophy Department, University of Oregon, Jan. 17
 - Philosophy Department, University at Albany, SUNY, March 14
- 2021 “The case of the missing tree ring hypothesis,” Norwood Russell Hanson Prize for Outstanding Graduate Student Papers (History and Philosophy of Science and Medicine colloquium, Indiana University) Nov. 7
- “What does philosophy have to do with machine learning in climate science?” (iDEAS seminar, Earth and Atmospheric Sciences Seminar Series, Indiana University) Sept. 20

TEACHING EXPERIENCE

- Teaching Interest: philosophy of climate science, big data, values in science, feminism
- 2023 SP PHIL 101 *Introduction to Philosophy* (Queens College, CUNY, instructor of record)
- 2019-20 HPSC 200 *Scientific Reasoning* (Indiana University, instructor of record; TA)
- 2015-17 PHIL 306 *History of Science* (Peking University, TA)

WORK EXPERIENCE

- 2021 **Indiana University**, Bloomington
Data Analyst (Institute for Digital Arts & Humanities)

PROFESSIONAL TRAINING

- 2021 Visiting Student to National Center of Atmospheric Research (NCAR, CO)
- 2019 [Philosophy & Physical Computing 2019 Summer Workshop](#) (VA)

PROFESSIONAL SERVICE

- Diversity Committee Graduate Member (IU HPSC)
- Graduate conference Co-Organizer (IU HPSC Women’s Leadership Conference, Oct. 26, 2019)

COMMUNITY SERVICE

- Indiana University’s Sciencefest (2017, 2018)
- Virginia Tech’s Robot Scientist (2019)

LANGUAGES

Chinese: Native; **English:** Fluent

TECH SKILLS

Programming: Python (with a passion for data visualization; familiar packages include Numpy, Pandas, Networkx, Matplotlib)

Platform: AutoCAD

OTHER

Fan of forensic science. Constantly amazed by the variety of evidence employed in solving murders—methodological pluralism rocks!