ANN C THRESHER

McCoy Family Center for Ethics in Society Stanford University 559 Nathan Abbot Way Stanford, CA 94305-3099 <u>thresher@stanford.edu</u> <u>Website</u> +1 (858) 999-4024

| AOS: | Philosophy of Science, Technology Ethics, Applied Ethics, Environmental Ethics |
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| AOC: | Space Ethics, Philosophy of Physics |
| CURRENT | POSITION |
| Sept 2022 | Postdoctoral Researcher with the McCoy Family Center for Ethics in Society and the Stanford Doerr School for Sustainability <i>Stanford University</i> |
| EDUCATIO | Ν |
| June 2022 | PhD in Philosophy The University of California, San Diego |
| | Dissertation: "Putting the Philosophy Back in Natural Philosophy: Ethics, Policy, and Using Philosophic Tools to Solve Scientific Problems" Committee: Craig Callender (Chair), Nancy Cartwright, Reuven Brandt, Elliott Sober, Ethan Bier |
| June 2013 | Honours in the History and Philosophy of Science, 1 st Class The University of Sydney |
| | Dissertation: "Time ^m – an Examination of Observer Interaction in Multiple Time Dimensions" Supervisor: Dean Rickles |
| June 2012 | Bachelor of Arts in Philosophy with Distinction The University of Sydney |
| June 2012 | Bachelor of Science in Physics with Distinction The University of Sydney |

PUBLICATIONS

BOOKS

Feb 2023 *The Tangle of Science: Reliability Beyond Method, Rigour, and Objectivity* Oxford University Press, with N. Cartwright, E. Montuschi, J. Hardy, and M. Soleiman https://doi.org/10.1093/oso/9780198866343.001.0001

ARTICLES

Nov 2023"Circular Spaces and Privileged Times: What the Video Game Asteroids Can
Teach Us About the A-Theory", Synthese.
https://doi.org/10.1007/s11229-023-04325-w

| Aug 2023 | "Big Science Collaborations Must Include Humanities and Social Sciences", <i>Nature, Human Behaviour,</i> with A. Marcoci et al. (Correspondence) <u>https://www.nature.com/articles/s41562-023-01674-x</u> |
|----------|--|
| Apr 2023 | "Key Science Goals for the Next-Generation Event Horizon Telescope", <i>Galaxies</i> , with P. Galison et al. <u>https://www.mdpi.com/2075-4434/11/3/61</u> |
| Feb 2023 | "Taking the Long View: Historic, Philosophical and Cultural Aspects of the Next Generation Event Horizon Telescope. <i>Galaxies</i> , with M. Johnson et al. <u>https://doi.org/10.3390/galaxies11010032</u> |
| Nov 2020 | "When Extinction is Warranted: Invasive Species, Suppression-Drives, and the |

Nov 2020 "When Extinction is Warranted: Invasive Species, Suppression-Drives, and the Worst-case Scenario", *Ethics, Policy and Environment*: 1-27 <u>https://doi.org/10.1080/21550085.2020.1848197</u>

PAPERS UNDER REVISION OR REVIEW

| Revise and Resubmit | "Get Angry about Climate Change", Environmental Ethics Eco-emotions, and the theoretical benefits of using anger to combat climate paralysis |
|------------------------|---|
| Under Review | "How Research Harms" Scientific harms and the underpinnings of moratoriums and scientific regulation |
| GRANTS | |
| May 2023 | Accelerating Biological Adaptation to Climate Change, Center for Coastal Climate Resilience (CCCR) Pilot Funding Initiative, with B. Shapiro, E. Palkovacs and W. Bussiere. |
| June 2023 | Facing the Anthropocene: Interdisciplinary Approaches to the Environmental Crisis, Stanford Humanities Center Grant |
| Under Review | <i>MSRI 2 Grant – Next Generation Event Horizon Telescope</i> , National Science Foundation (\$82 Million), invited to second stage |

CURRENT COLLABORATIONS AND MEMBERSHIPS

Steering Committee - Environmental Biotechnology Council, Lab to Land & the Aspen Institute

Member - Accelerating Biological Adaption to Climate Change Working Group, *The University* of California, Santa Cruz

Member - Climate and Energy Policy Program Working Group, Stanford University

Project Lead - Responsible Telescope Siting, *The Next Generation Event Horizon Telescope, Harvard Black Hole Initiative and the Smithsonian Institute*

Affiliate - The Black Hole Initiative, Harvard University

Member - Religion, Ecology and Environmental Ethics: A Case Study for the Applied Humanities Working Group, *Stanford University*

Associate Member - Astronomy in Culture Working Group, International Astronomical Union

Member – Palo Alto Elk Reintroduction Project, Stanford University

Lab Member - Hadley Lab (Biology), The Social Ecology Lab (Environmental Behaviour), Environmental Justice Lab, *Stanford University*

FELLOWSHIPS AND AWARDS

| 2022 | Heinrich Hertz Fellow, Lichtenberg group in History and Philosophy of Physics, University of Bonn, Germany |
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| 2020 | Graduate Scholar, Summer Graduate Teaching Scholarship |
| 2020 | Fellow, Friends of the International Centre |
| 2018-20 | Research Grant, The Tangle of Science with N. Cartwright |
| 2019 | Graduate Fellow, Institute for Practical Ethics, UC San Diego |

POLICY WORK

| 2023-4 | Consultation for the <i>Subcommittee on Research and Technology</i> of the <i>US House Committee on Science, Space, and Technology</i> on strategies to integrate ethics into the NSF and national science and technology policy. |
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| 2023-4 | Steering Committee – National Environmental Biotechnology Council Lab to Land and the Aspen Institute |
| SELECT RE | SEARCH TALKS AND WORKSHOPS |
| 2024 | Plenary Panellist for "Working with Scientists", BSPS, The University of York |
| 2024 | Environmental Biotechnology Private Roundtable, Aspen Ideas: Climate, The Aspen Institute, Miami, USA |
| 2024 | Workshop, Environmental Biotechnology in Place, Lab to Land, Paicines Ranch |
| 2024 | Workshop, New Thinking in Conservation, UC San Diego |
| 2024 | "ngEHT: Responsible Siting", Equitable Astrophysics: Peru, Harvard University |
| 2023 | "Values, Ethics, and Environmental Education Beyond Science", <i>Broadening</i> Participation in Undergraduate Climate Education, Harvey Mudd College |
| 2023 | "Planet-sized Integrated Philosophy of Science" (Symposium), British Society for the Philosophy of Science, Bristol |
| 2023 | "Consulting Ethicists for Policy and Research", <i>Biosecurity and Biodefence for</i> Congressional Staffers, Stanford University |

| 2023 | "Resolving Earth Problems with Black Hole Telescopes; Socially and Environmentally Responsible Siting Practices", <i>Black Hole Initiative Conference</i> , Harvard University | |
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| 2023 | "When Extinction is Warranted – Invasive Species, Gene-Drives and the Worst- Case Scenario, ", Woods Institute Environmental Forum, Stanford University | |
| 2023 | Workshop, <i>Accelerating Adaption</i> , University of Santa Cruz Center for Coastal Climate Resilience and the Lab to Land Institute, USA | |
| 2023 | "What Sustainability Needs from Synthetic Biology" (Panellist), Symposium on Synthetic Biology, Stanford University, USA | |
| 2022 | "How Research Harms", Department Seminar, Bucknell University, USA | |
| 2022 | "What the Video Game Asteroids Can Teach Us About Presentism", International Association for the Philosophy of Time, Barcelona, Spain | |
| 2022 | "Telescope Siting Ethics", Inaugural Next Generation Event Horizon Telescope Meeting, Granada, Spain | |
| 2022 | "Pedagogy and Play" (Panel), Philosophy Justice Games, UC San Diego, USA | |
| 2022 | "When Extinction is Warranted", CHESS, The University of Durham, UK | |
| 2022 | "The Tangle of Science" (Keynote) <i>Reliability in Science and Philosophy Symposium</i> , The University of Kent, UK | |
| 2022 | "Reliability in Modelling" (Panel), ngEHT History, Philosophy, Culture Working Group Plenary Session, Harvard University, USA | |
| 2021 | "Circular Spaces and Privileged Times", <i>Philosophy of Science Association</i> , Baltimore, USA | |
| 2017 | "Paradoxes, Parallel Worlds, and Comic Books" San Diego Comic-Con Academic Conference, San Diego, USA | |
| CONFERENCES AND WORKSHOPS ORGANISED | | |
| 2023 | Organiser, "Workshop on Intervening in Nature" (WIN), Catalina Island, USA | |
| 2023 | Organiser, "History, Philosophy and Culture Conference", <i>The Next Generation Event Horizon Telescope</i> Collaboration in association with the <i>Black Hole Institute</i> , Harvard University, USA | |
| 2022 | Organiser, "The Ethics of Telescope Siting Workshop", <i>The Next Generation Event Horizon Telescope</i> Collaboration in association with the <i>Black Hole Institute</i> , Harvard University, USA | |
| 2018 | Assistant Organiser, "Time and the Observer Workshop", UC San Diego, La Jolla, USA | |

| 2015 | Organiser, "Einstein's Legacy: Celebrating 100 Years of General Relativity" Conference, <i>Royal London Mathematical Society</i> (LMS) (with the <i>Institute of Physics</i> and the <i>Royal Astronomical Society</i>) University of London, London, UK |
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| 2015 | Assistant Organiser, "Time, Identity, and the Future" Conference, <i>Centre for Time</i> , University of Sydney, Blue Lagoon, Iceland |
| 2015 | 150 th Anniversary Celebrations Programme Manager & Organiser, "Queen of the Sciences: A Celebration of Numbers and the London Mathematical Society", "Women in Mathematics Day" & "British (Applied) Mathematics Colloquium", <i>Royal London Mathematical Society</i> , London, Oxford & Cambridge, UK |

PROFESSIONAL SERVICE

| 2023-24 | Coordinating Panellist, Ethics and Society Review, Stanford University |
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| 2023 | Undergraduate Honours Thesis Supervisor |
| 2016-23 | Referee: Philosophy of Science, Synthese, National Science Foundation, American Chemical Society: Synthetic Biology, Cambridge Prisms |
| 2023 | Founder, Stanford Queer Philosophy Reading Group |
| 2022 | Underrepresented Philosophy of Science Scholars Mentor, Philosophy of Science Association |
| 2021 | Speaker, "How to Write a Writing Sample", Summer Program for Women in Philosophy, UC San Diego |
| 2020-21 | Founding Chair, UC San Diego Philosophy Department Climate Committee |
| 2020 | Founder, UC San Diego Philosophy Queer Phenomenology Reading Group |
| 2018-19 | Treasurer, The American Philosophy of Time Society |
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PUBLIC PHILOSOPHY

| Forth. | Responsible Siting Ethics, Podcast |
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| 2023 | The Tangle of Pseudo-Science, The Philosopher, Conversation w/ Peter Vickers |
| 2023 | Science as Art, The Institute of Art and Ideas, Article |
| 2023 | Science & Ethics, That's What I Call Science, Podcast |
| 2023 | Physics Got Me Here, Australian Institute of Physics, Interview |
| 2023 | Why Trust Science?, Philosophy Talk, Podcast |
| 2022 | We Could Kill All Mosquitoes (But Should We?), Deutsche Welle, Interview |

TEACHING

| Instructor of | Record, Stanford | |
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| 2023 | Techno-optimism (Can we Invent Our Way Out of Climate Change?), Fall Quarter | |
| Instructor of | Record, UC San Diego | |
| 2021 | Topics in Bioethics (Nature in Crisis), Summer Session | |
| 2020 | Technology and Human Values (The Philosophy of Robots), Summer Session | |
| Teaching Ass | sistant, Stanford | |
| 2023 | Ethics of the Anthropocene, Spring Quarter | |
| 2023 | Exploring Planetary Stewardship, Accelerated Summer Course | |
| Teaching Assistant, UC San Diego | | |
| 2022, 17 | Metaphysics: Nature of Reality | |
| 2020, 16, 15 | Ethics and Society | |
| 2019, 15 | Logic | |
| 2018 | Middle-Level Theory (Graduate Seminar) | |
| 2018 | Introduction to Ethics | |
| 2018 | Philosophy of Physics | |
| 2018 | Games We Play: Games, Performance, and Play | |
| 2017 | Scientific Reasoning | |
| 2017 | Introduction to Philosophy | |
| 2017 | Are We Alone? Aliens, the Other, and Communication | |
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Selected Guest Lectures

Stanford Doerr School for Sustainability, Stanford University

| 2023 | "Extinction and De-Extinction" for The Sixth Extinction (And the Other Five) |
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| 2023, 22 | "Interdisciplinary Ethics Collaborations" for Epistemology and Social Values in Interdisciplinary Environmental Research (Grad Seminar) |
| 2023 | "Environmental Ethics Decision Frameworks" for Research Approaches for Environmental Problem Solving (Grad Seminar) |
| 2023 | "Scientific Reasoning and Logic" for EIPER (Grad Seminar) |
| 2023, 22 | "Environmental Ethics" for Introduction to Earth Systems |
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d.School, Stanford University

- 2023 "Ethical Decision Frameworks" for *Design 361*
- 2023 "Ethics and Stakeholder Identification" for *Design 301*

Other Institutions

2022 "The Tangle of Science" for *Philosophy of Science Masters Seminar*, Leibniz University of Hannover

| 2020 | "Invasive Species and CRISPR/Cas9" for <i>Environmental Ethics</i> , Claremont McKenna College |
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| 2020 | "The Physics of Time" for Philosophy of Time, The University of Kent |
| 2019 | "Time and Time-Travel" for Philosophy of Physics, UC San Diego |

Pedagogy Training

| 2020 | Introduction to College Teaching, Summer Graduate Scholars Teaching Program, 10-week course, UC San Diego |
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| 2020 | Reacting: Games for Education, work with Andy Lamey at UC San Diego. Information on Reacting may be found <u>here</u> . |

REFERENCES

| Professor Craig Callender, Philosophy a | d the Institute for | Practical Ethics, | UC San Diego |
|---|---------------------|-------------------|--------------|
| ccallender@ucsd.edu | | | |

- Distinguished Professor Nancy Cartwright, Philosophy, Durham University and UC San Diego nancy.cartwright@durham.ac.uk
- Professor Peter Galison, History and Philosophy of Science and the Black Hole Initiative, Harvard University and the Smithsonian Institute galisonasst@fas.harvard.edu
- Professor Leif Wenar, Philosophy and The Wood's Institute, Stanford University lwenar@stanford.edu