Yun Hang, PhD, MS

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EDUCATION AND TRAINING

2020-23   Postdoc, Environmental Health, Rollins School of Public Health, Emory University, Atlanta, GA, USA
Topic: Application of remote sensing and machine learning in environmental exposure modeling
Advisor: Prof. Yang Liu | Mentor: Prof. Tracey Holloway

2017-20   PhD, Environment and Resources, Nelson Institute for Environmental Studies | Atmospheric and Oceanic Sciences, College of Letters and Science, University of Wisconsin, Madison, WI, USA
Dissertation: New Light on Earth's Energy Budget and Its Implication for Solar Energy Potential
Advisor: Prof. Tristan L'Ecuyer | Mentor: Prof. Tracey Holloway

EMPLOYMENT HISTORY

2023-   Tenure-Track Assistant Professor, Department of Environmental and Occupational Health Sciences, Department of Biostatistics and Data Science (Jointly Appointed), School of Public Health, University of Texas Health Science Center at Houston (UTHealth)

2021-23   Course Instructor, Rollins School of Public Health (RSPH), Emory University

2020-23   Climate and Health Postdoctoral Research Fellow (40% with Emory Climate and Health Research Incubator, 60% with Gangarosa Department of Environmental Health), RSPH, Emory University

2020   Instructor, Nelson Institute for Environmental Studies, University of Wisconsin-Madison (UW)

RESEARCH

* Role as First or Corresponding Author

1. Romanello M, Walawender M, Hsu S-C, Moskeland A, Palmeiro-Silva Y, Scamman D, Ali Z, Ameli N, Angelova D, Ayeb-Karlsson S, Basart S, Beagley J, Beggs P J, Blanco-Villafuerte L, Cai W, Callaghan M, Campbell-Lendrum D, Chambers J D, Chicmana-Zapata V, Chu L, Cross T J, van Daalen K R, Dalin C, Dasandi N, Dasgupta S, Davies M, Dubrow R, Eckelman M, Ford J D, Freyberg C, Gasparyan O, Gordon-Strachan G, Grubb M, Gunther S H, Hamilton I, **Hang Y**, Hänninen R, Hartinger S, He K, Heidecke J, Hess J J, Jamart L, Jankin S, Jatkar H, Jay O, Kelman I, Kennard H, Kiesewetter G, Kinney P, Kniveton D, Kouznetsov R, Lampard P, Lee J K W, Lemke B, Li B, Liu Y, Liu Z, Llabrés-Brustenga A, Lott M, Lowe R, Martinez-Urtaza J, Maslin M, McAllister L, McMichael C, Mi Z, Milner J, Minor K, Minx J, Mohajeri N, Momen N C, Moradi-Lakeh M, Morrisey K, Munzert S, Murray K A, Obradovich N, O'Hare M B, Oliveira C, Oreszczyn T, Otto M, Owfi F, Pearman O L, Pega F, Perishing A J, Pinho-Gomes A-C, Ponmattam J, Rabbaniha M, Rickman J, Robinson E, Rocklöv J, Rojas-Rueda D, Salas R N, Semenza J C, Sherman J D, Shumake-Guillemot J, Singh P, Sjödin H, Slater J, Sofiev M, Sorensen C, Springmann M, Stalhandske Z, Stowell J D, Tabatabaei M, Taylor J, Tong D, Tonne C, Treskova M, Trinanes J A, Uppstu A, Wagner F, Warnecke L, Whitcombe H, Xian P, Zavaleta-Cortijo C, Zhang C, Zhang R, Zhang S, Zhang Y, Zhu Q, Gonga P, Montgomerya H, Costelloa A, 2024. The 2024 report of the Lancet Countdown on health and climate change. *The Lancet*, in press.

2. Xi Y, Wettstein ZS, Kshirsagar AV, Liu Y, Zhang D, **Hang Y**, Rappold AG, 2024. Elevated ambient temperature associates with increased CVD-risk among hemodialysis patients, *Kidney International Reports*. Link

3. Huang H, Lu Z, Fan X, Zhai W, Zhang L, Xu D, Liu Z, Li Y, Ye X, Qin H, Lanza K, **Hang Y,*** 2024. Urban heatwave, greenspace, and mental health: a review based on environmental health risk assessment framework. *Science of The Total Environment*, 174816. Link

4. Zhao W, Zhao Y, Zheng Y, Chen D, Xin J, Li K, Che H, Li Z, Ma M, **Hang Y**, 2024. Long-term variability in black carbon emissions constrained by gap-filled absorption aerosol optical depth and associated premature mortality in China. *Atmospheric Chemistry and Physics*, 24(11), 6593-6612. Link

5. **Hang Y,*** Meng X, Xi Y, Zhang D, Lin X, Laing F, Tian H, Li T, Wang T, Cao J, Fu Q, Dey S, Li S, Huang K, Kan H, Shi X, Liu Y, 2023. Atmospheric elemental carbon pollution and its regional health disparities in China. *Environmental Research Letters*, 18 124017. Link

6. Xi Y, Wettstein ZS, Kshirsagar AV, Liu Y, Zhang D, **Hang Y**, Rappold AG, 2023. Exposure to elevated temperature is associated with elevated risk for cardiovascular disease (CVD) outcomes and mortality among hemodialysis patients in the United States: TH-PO277. *Journal of the American Society of Nephrology* 34(11S):p 167-168. Link

7. Romanello M, Napoli CD, Green C, Kennard H, Lampard P, Scamman D, Walawender M, Ali Z, Ameli N, Ayeb-Karlsson S, Beggs PJ, Belesova K, Ford LB, Bowen K, Cai W, Callaghan M, Campbell-Lendrum D, Chambers J, Cross TJ, Daalen K, Dalin C, Dasandi N, Dasgupta S, Davies M, Dominguez-Salas P, Dubrow R, Ebi KL, Eckelman M, Ekins P, Freyberg C, Gasparyan O, Gordon-Strachan G, Graham H, Gunther SH, Hamilton I, **Hang Y**, Hänninen R, Hartinger S, He K, Heidecke J, Hess J, Hsu SC, Jamart L, Jankin S, Jay O, Kelman I, Kiesewetter G, Kinney P, Kniveton D, Kouznetsov R, Larosa F, Lee J, Lemke B, Liu Y, Liu Z, Lott M, Batista M, Lowe R, Sewe M, Martinez-Urtaza J, Maslin M, McAllister L, McMichael C, Mi Z, Milner J, Minor K, Minx J, Mohajeri N, Momen NC, Moradi-Lakeh M, Morrissey K, Munzert S, Murray KA, Neville T, Nilsson M, Obradovich N, O'Hare MB, Oliveira C, Oreszczyn T, Otto M, Owfi F, Pearman O, Pega F, Pershing A, Rabbaniha M, Rickman J, Robinson EJZ, Rocklöv J, Salas RN, Semenza JC, Sherman JD, Shumake-Guillemot J, Silbert G, Sofiev M, Springmann M, Stowell JD, Tabatabaei M, Taylor J, Thompson R, Tonne C, Treskova M, Trinanes JA, Wagner F, Warnecke L, Whitcombe H, Winning M, Wyns A, Yglesias-González M, Zhang S, Zhang Y, Zhu Q, Gong P, Montgomery H, Costello A, 2023. The 2023 report of the Lancet Countdown on health and climate change: the imperative for a health-centred response in a world facing irreversible harms. *The Lancet*, 402(10419). Link

8. Zhang D, Wang W, Xi Y, Bi J, **Hang Y**, Zhu Q, Pu Q, Chang H, Liu Y, 2023. Wildland fires worsened population exposure to $PM_{2.5}$ pollution in the contiguous United States. *Environmental Science & Technology*. Link

9. Meng X, **Hang Y,*** Lin X, Li T, Wang T, Cao J, Fu Q, Dey S, Huang K, Liang F, Kan H, Shi X, Liu Y, 2023. A satellite-driven model to estimate long-term particulate sulfate levels and attributable mortality burden in China. *Environment International*, 107740. Link

10. Napoli CD, Romanello M, Minor K, Chambers J, Dasgupta S, Escobar LE, **Hang Y**, Hänninen R, Liu Y, Batista ML, Lowe R, Murray KA, Owfi F, Rabbaniha M, Shi L, Sofiev M, Tabatabaei M, Robinson EJZ, 2023. The role of global reanalyses in climate services for health: Insights from the Lancet Countdown. *Meteorological Applications*, 30(2), e2122. Link

11. Wu S, Zhang J, Li J, Chen Z, **Hang Y**, Niu M, Kuang Y, Hu R, 2023. The reduced Siberian spring snow cover modulation on southward northernmost margin of East Asia Summer Monsoon. *Climate Dynamics*, 1-16. Link

12. Shi S, Wang W, Li X, **Hang Y**, Lei J, Kan H, Meng X, 2023. Optimizing modeling windows to better capture the long-term variation of $PM_{2.5}$ concentrations in China during 2005-2019. *Science of the Total Environment*, 158624. Link

13. Romanello M, Napoli CD, Drummond P, Green C, Kennard H, Lampard P, Scamman D, Arnell N, Ayeb-Karlsson S, Ford LB, Belesova K, Bowen K, Cai W, Callaghan M, Campbell-Lendrum D, Chambers J, Daalen KR, Dalin C, Dasandi N, Dasgupta S, Davies M, Dominguez-Salas P, Dubrow R, Ebi KL, Eckelman M, Ekins P, Escobar LE, Georgeson L, Graham H, Gunther SH, Hamilton I, **Hang Y**, Hänninen R, Hartinger S, He K, Hess J, Hsu SC, Jankin S, Jamart L, Jay O, Kelman I, Kiesewetter G, Kinney P, Kjellstrom T, Kniveton D, Lee JKW, Lemke B, Liu Y, Liu Z, Lott M, Batista ML, Lowe R, MacGuire F, Odhiambo SM, Martinez-Urtaza J, Maslin M, McAllister L, McGushin A, McMichael C, Mi Z, Milner J, Minor K, Minx JC, Mohajeri N, Moradi-Lakeh M, Morrissey K, Munzert S, Murray KA, Neville T, Nilsson M, Obradovich N, O'Hare MB, Oreszczyn T, Otto M, Owfi F, Pearman O, Rabbaniha M, Robinson EJZ, Rocklöv J, Salas RN, Semenza JC, Sherman JD, Shi L, Shumake-Guillemot J, Silbert G, Sofiev M, Springmann M, Stowell J, Tabatabaei M, Taylor J, Trinanes J, Wagner F, Wilkinson P, Winning M, Yglesias-González M, Zhang S, Gong P, Montgomery H, Costello A, 2022. The 2022 report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels. *The Lancet*, 400(10363). Link

14. **Hang Y,*** Meng X, Li T, Wang T, Cao J, Fu Q, Dey S, Li S, Huang K, Liang F, Kan H, Shi X, Liu Y, 2022. Assessment of long-term particulate nitrate air pollution and its health risk in China. *iScience*, p.104899. Link

15. Dzambo AM, Mooney M, Handlos ZJ, Lindstrom S, **Hang Y,** Ackerman SA, 2021. Improving Climate Literacy through an Interactive Online Undergraduate Course. *Bulletin of the American Meteorological Society*, 102(6), 501-506. Link

16. Dzambo AM, Mooney M, Handlos ZJ, Lindstrom S, **Hang Y,** Ackerman SA, 2020. An interactive online course in climate and climate change: Advancing climate literacy for non-atmospheric science majors. *Bulletin of the American Meteorological Society*, 101(10). Link

17. **Hang Y,*** 2020. New light on Earth's energy budget and its implication for solar energy potential. The University of Wisconsin-Madison. Link

18. **Hang Y,*** L'Ecuyer TS, Henderson DS, Matus AV, Wang Z, 2019. Reassessing the effect of cloud type on Earth's energy balance in the age of active spaceborne observations. Part II: Atmospheric heating. *Journal of Climate*, 32(19). Link

19. L'Ecuyer TS, **Hang Y,*** Matus AV, Wang Z, 2019. Reassessing the effect of cloud type on Earth's energy balance in the age of active spaceborne observations. Part I: Top of atmosphere and surface. *Journal of Climate*, 32(19). Link

20. **Hang Y,*** 2016. The Effect of Cloud Type on Earth's Energy Balance. The University of Wisconsin-Madison. Link

21. Lu M, Tan G, Chen H, **Hang Y,** Chen Q, 2013. The relationship between summer rainfall anomalies in Yangtze-Huaihe valley and atmospheric circulation anomalies over the western Indian Ocean. *Journal of Meteorological Sciences*, 33. Link

TEACHING

University of Texas Health Science Center

2024   PHM 2110 (graduate-level): Public Health Ecology and Human Environment (Instructor)

2023   PHD 2105 (graduate-level): Environmental and Occupational Health Sciences Doctoral Research Seminar (Guest Lecturer)

Emory University

2021-23   EH 586 (graduate-level): Advanced Seminar in Climate Change and Health (Co-Instructor)

University of Wisconsin-Madison

2020   ES 956 (graduate-level): Advanced Environmental Remote Sensing (Co-Instructor)

2019   AOS 101 (undergraduate-level): Climate and Weather Lab (Instructor)

AOS 100 (undergraduate-level): Climate and Weather (Teaching Assistant)

AOS 102 (undergraduate-level): Climate and Climate Change (Teaching Assistant)

SERVICE

Service to University

University of Texas Health Science Center

2024-   Interviewer, Occupational and Environmental Medicine Residency Program

2024   Judge, School of Public Health Student Research Poster Competition

2023-   Member, UTHealth University Interfaculty Council

2023-   Member, School of Public Health Faculty Council

2023-   Member, Department of Environmental and Occupational Health Sciences Admission Committee

Emory University

2020-23   Member, Emory Diversity, Equity, and Inclusion Institutional Strategic Planning Committee

2021-22   Reviewer, Emory Climate and Health Research Incubator Pilot Grant

Service to Profession

Leadership in National and International Organizations

2024-   Co-Chair, American Geophysical Union GeoHealth Early Career Researcher Committee

Editorial and Peer Review Activities for Journals, Books, and Reports

2024-   Associate Editor, GeoHealth

2020-   Reviewer, AGU Books; Atmospheric Environment; Atmospheric Research; Chemosphere; Climate Dynamics; Environmental Health Perspectives; Earth and Space Science; Earth System Science Data; Environmental Research: Health; Environmental Research Letters; Environmental Science: Atmospheres; Environmental Science and Technology; Frontiers in Earth Science; GeoHealth; Geoscientific Model Development; Intergovernmental Panel on Climate Change AR6; Journal of Climate; Journal of Geophysical Research-Atmospheres; Journal of Hazardous Materials; Lancet Countdown U.S. Policy Brief; Nature Communications; npj Climate and Atmospheric Science; PLOS One; Remote Sensing; Science Advances; Science of the Total Environment; Weather, Climate, and Society