CONTACT INFORMATION	lrei htt En Gia	nnels@berkeley.edu ps://www.lisarennels.com ergy and Resources Group annini Hall, 345, Berkeley, CA 94720	
EDUCATION	Ph.D. in Energy and Resources 2019 – present University of California, Berkeley, CA Working Title: <i>Economics of Climate Change Under Uncertainty and</i> <i>Engineering the Software for its Research</i> Committee: David Anthoff (chair), Maximilian Auffhammer, Sarah Chasins, and Formando Parez		
	М.	Sc. in Computer Science University of California, Berkeley, CA	2022
	М.	Sc. in Energy and Resources University of California, Berkeley, CA	2019
	Pos	st-Baccalaureate Certificate in Computer Science Tufts University, Medford, MA	2017
	B.S	a. in Environmental Studies Dartmouth College, Hanover, NH	2014
RESEARCH & FIELDS	Clin Ris Int Sof Usa	mate Change Economics k, Uncertainty Analysis, and Sensitivity Analysis egrated Assessment Modeling and Social Cost of Greenhouse Ga tware Engineering & Development ability and Design of Embedded Domain Specific Languages	ises
REFEREED JOURNAL PUBLICATIONS	1.	Rennels , L., & Chasins, S. E. (2023). How Domain Experts Us DSL. <i>Proceedings of the ACM on Programming Languages</i> , 70 1499-1530.	se an Embedded (OOPSLA2),
	2.	Tan, T., Rennels , L., & Parthum, B. The Social Costs of Hydro and the Large Climate Benefits from their Expedited Phasedow Research in Environmental Economics - NCEE Working Pape Accepted at Nature Climate Change.	ofluorocarbons m. (2023). rr Series.
	3.	Rennert, K., Errickson, F.*, Prest, B. C.*, Rennels, L. *, Newel W., & Anthoff, D. (2022). Comprehensive Evidence Implies a Cost of CO2. <i>Nature</i> , <i>610</i> (7933), 687-692. * <i>equal contribution</i>	l, R. G., Pizer, a Higher Social ı
	4.	Wong, T. E., Ledna, C., Rennels , L., Sheets, H., Errickson, F. C., Diaz, D., & Anthoff, D. (2022). Sea Level and Socioeconomic Uncertainty Drives High-Encoastal Adaptation Costs. <i>Earth's Future</i> , <i>10</i> (12), e2022EF003061.	
	5.	Wong, T. E., Rennels , L., Errickson, F., Srikrishnan, V., Bakk & Anthoff, D. (2022). MimiBRICK. jl: A Julia package for the B sea-level change in the Mimi integrated modeling framework. <i>Source Software</i> , <i>7</i> (76), 4556.	er, A., Keller, K., BRICK model for Journal of Open
	6.	Rennert, K., Prest, B. C., Pizer, W. A., Newell, R. G., Anthoff, D Rennels , L., & Errickson, F. (2021). The Social Cost of Carl Long-Term Probabilistic Projections of Population, GDP, Emis Discount Rates. <i>Brookings Papers on Economic Activity</i> .	., Kingdon, C., oon: Advances in sions, and
	7.	Melvin, A.M., Larsen, P., Boehlert, B., Neumann, J.E., Chinows X., Martinich, J., Baumann, M.S., Rennels , L., Bothner, A. an (2017). Climate change damages to Alaska public infrastructure economics of proactive adaptation. <i>Proceedings of the National</i>	sky, P., Espinet, Id Nicolsky, D.J. e and the Il Academy of

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	Sciences, 114(2), E122-E131.		
	 Chapra, S. C., Boehlert, B., Fant, C., Bierman Jr, V. J., Henderson, J., Mills, D., Mas, D., Rennels, L., Jantarasami, L., Martinich, J., Strzepek, K. M., Bierman, V., and Paerl, H. (2017). Climate change impacts on harmful algal blooms in US freshwaters: a screening-level assessment. <i>Environmental</i> <i>Science & Technology</i>, 51(16), 8933-8943. 		
	9. Fant, C., Srinivasan, R., Boehlert, B., Rennels, L. , Chapra, S. C., Strzepek, K. M., and Martinich, J. (2017). Climate change impacts on US water quality using two models: HAWQS and US basins. <i>Water</i> , 9(2), 118.		
	10. Larsen, P. H., Boehlert, B., Eto, J., Hamachi-LaCommare, K., Martinich, J., and Rennels , L. (2018). Projecting future costs to US electric utility customers from power interruptions. <i>Energy</i> , 147, 1256-1277.		
	11. Melvin, A. M., Murray, J., Boehlert, B., Martinich, J. A., Rennels, L., and Rupp, T. S. (2017). Estimating wildfire response costs in Alaska's changing climate. <i>Climatic Change</i> , 141(4), 783-795.		
SELECT PAPERS IN PREPARATION	 Rennels, L., Errickson, F., Keller, K., Parthum, B., Smith, D., and Anthoff, A. Considering Robustness to Deep Uncertainties Drives More Rapid Emissions Reductions. 		
	3. Prest, B.*, Rennels, L.* , Errickson, F., and Anthoff, A. US Government's New Guidance to Address Distributional Equity in Benefit-Cost Analysis Greatly Increases the Social Cost of Carbon Dioxide. Submitted to Science. * <i>equal contribution</i> .		
	14. Darnell, C., Rennels, L. , Errickson, F., Wong, T.E., & Srikrishnan, V. Pathways and Key Drivers of Extreme Global Mean Sea Level Rise.		
	15. Rennels, L and Anthoff, A. A Global Sensitivity Analysis of the Social Costs of Greenhouse Gases.		
	 Bressler, D.R., Shimberg, N., Rennels, L., Parthum, B., Smith, D., Errickson, F., & Anthoff, D. Large Disproportional Mortality Impacts on Poor Countries Drive a Higher Equity Weighted Social Cost of CO2. 		
	7. Anthoff, D., Errickson, F., Prest, B., Rennels, L., & Wingenroth, J. Valuing biodiversity losses as part of the social cost of CO2.		
	18. Anthoff, D., Druup, M., Haensel, M., Moore, F.C., Rennels, L. , Rising, J., & Schaumann, F. Structural Interactions in Integrated Assessment Models.		
	19. Errickson, F., Wong, T.E., Keller, K., Rennels, L. , & Anthoff, D. Improved climate modeling reduces extreme social cost of carbon estimates Frank C. Errickson, Tony Wong, Klaus Keller, Lisa Rennels, & David Anthoff.		
AWARDS & HONORS	Excellence Award 2020 Electrical Engineering and Computer Science at UC Berkeley \$5,000 prize awarded		
	Data Sciences for the 21st Century (DS421) Trainee 2019 National Science Foundation 2019		
	Downey Family Prize for Excellence in Independent Research 201 Dartmouth College Environmental Studies Department 201		
POSITIONS & TEACHING EXPERIENCE	 EPA Research Fellow (Oak Ridge Institute for Science and Education) 2023-2024 National Center of Environmental Economics EPA Research Fellowship to Further Estimation of the Social Cost of Greenhouse Gases 		

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	Graduate Student Instructor Fall 2022, Spring 2023 Energy and Resources Group at University of California, Berkeley, CA ENERES 102 Quantitative Aspects of Global Environmental Change ENERES 176 Climate Change Economics
	 Graduate Student Researcher 2017 - 2022 Energy and Resources Group at University of California, Berkeley, CA Project: Social Cost of Carbon Initiative, Resources for the Future, Washington, D.C. University PI: David Anthoff Grantee Organization and PI: Resources for the Future, Kevin Rennert and Brian Prest
	 Independent Consultant Various independent consulting positions focused on climate change economics, integrated assessment modeling, and software engineering: For Resources for the Future, Washington, D.C.: Work as lead modeler and contributing researcher for the Social Cost of Carbon team at RFF to support the U.S. Environmental Protection Agency in developing an updated social cost of carbon (2021-2022) For Terra.do: Co-design and teach a 6-week online course entitled Climate Change for Software Engineers (2021) For University of California, Santa Cruz, CA Sustainability Office on project for University of California Office of the President (UCOP): Serve as an expert consultant and technical lead for developing and implementing an equity-weighted social cost of carbon for use within the UC System (2021-2023)
	Research Analyst2014 - 2022Industrial Economics, Inc., Cambridge, MAWork Focus: Climate Change, Water Resources, Economic Valuation, and Implications for Policy DecisionsPrimary Clients: U.S. Environmental Protection Agency, World Bank, U.S. Department of Justics, U.S. Department of the Interior
PRESENTATIONS & INVITED TALKS	 Lisa Rennels. How Domain Experts use an Embedded DSL. Systems, Programming, Languages, and Applications: Software for Humanity (SPLASH OOPSLA). Cascais, Portugal. 2024. (Forthcoming) Lisa Rennels How Domain Experts use an Embedded DSL. UC Berkeley Effective Programming, Interaction, and Computation with Data (EPIC) Lab Retreat. Berkeley, CA. 2024. (Forthcoming) Lisa Rennels. Building Open Source Software for Climate Change Research – Lessons Learned from Mimi.jl. NASA Ames Earth Science Division Seminar. San Jose, CA. 2023. Lisa Rennels. Estimating the Social Cost of Methane with the GIVE Model. EAERE 2023. Limassol, Cyprus. 2023. Lisa Rennels and David Anthoff. Equity Weighting and Risk Adjusting the Social Cost of Carbon. CESifo Area Conference on Energy and Climate Economics 2023. Munich, Germany. 2023. Lisa Rennels. Comprehensive Evidence Implies a Higher Social Cost of CO2. American Geophysical Union (AGU) 2022 Fall Meeting. Chicago, IL. 2022.

	Lisa Rennels. <i>Comprehensive Evidence Implies a Higher Social Cost of CO2</i> . Invited Talk at Industrial Economics Inc. Remote. 2022.				
	Lisa Rennels. <i>Comprehensive Evidence Implies a Higher Social Cost of CO2</i> . C Lecture in Climate Change Economics (ENERES 176) Course. Berkeley, CA. 20				
	Lisa Rennels and Cora Kingdon. <i>Mimi.jl – Next Generation Climate</i> <i>Modeling</i> . JuliaCon 2019. Baltimore, MD. July 25, 2019.	e Economics			
REVIEWER	NatureNature Climate Change				
SERVICE & COMMITTEE MEMBERSHIP	College of Natural Resources (CNR) Student Mentor "Real Talk Buddies" Program, UC Berkeley	2023-2024			
	Faculty Search Committee Member Energy and Resources Group, UC Berkeley	2023			
	Executive Committee Student Representative Energy and Resources Group, UC Berkeley	2019-2022			
	Alumni Relations Student Representative Energy and Resources Group, UC Berkeley	2019-2022			
EXPERIENCE	Avoiding and Reducing Long-term Risks of Climate Change: A Technical Report for the Fourth National Climate Assessment. (EPA, 2017)				
	Climage Change Impacts and Risk Analysis (CIRA). (EPA, 2017)				
	Climate Change in the United States: Benefits of Global Action. (EPA, 2017).				
	The Contribution of Water Resources Development and Environmental Management to Uganda's Economy. Kenneth Strzepek, Brent Boehlert, Jacqueline Willwerth, and James Neumann. August 16, 2016.				
	The Costs of Climate Change Impacts and Responses on DOI Sites in the Southeastern United States. Brent Boehlert and Jessica Murray. March 8, 2016.				
	For all above contributed to technical work and modeling, results analysis, and experimental design				
REFERENCES	David Anthoff, Ph.D. Professor, Energy and Resources Group, UC Berkeley, CA				
	Kevin Rennert, Ph.D. Fellow and Director of the Federal Climate Policy Initiative Resources for the Future, Washington, D.C.				
	Al McGartland, Ph.D. Director, National Center for Environmental Economics, Washington, D.C Environmental Protection Agency (EPA), Washington, D.C				
	Maximilian Auffhammer, Ph.D. Professor, Dept. of Agriculture & Resource Economics, UC Berkeley, CA				
	Sarah Chasins, Ph.D. Assistant Professor, Computer Science Division at UC Berkeley EECS, CA				
	Fernando Perez, Ph.D. Professor, Dept. of Statistics, UC Berkeley, CA				