What can PL folks do about climate change?

Benjamin C. Pierce
University of Pennsylvania
What can PL folks do about climate change?

Benjamin C. Pierce

University of Pennsylvania
individual

PL researcher

computer scientist

employee

citizen
What can I do as an individual?
recycle  

drive an EV 

insulate  

cycle / walk  

fly less  

install heat pumps 

eat less meat 

etc., etc., etc.
What can I do as a citizen?
Vote
What can I do as a PL researcher?
Ideas welcome!

In particular...
There are simultaneous crises across the planet due to rising CO$_2$ emissions, rapid biodiversity loss, and desertification. Assessing progress on these complex and interlocking issues requires a global view on the effectiveness of our adaptations and mitigations. To succeed in the coming decades, we need a wealth of new data about our natural environment that we rapidly process into accurate indicators, with sufficient trust in the resulting insights to make informed decisions.

Anil Madhavapeddy and Dominic Orchard, co-chairs
Does it have to have something to do with PL?
What can I do as a computer scientist?
Reducing carbon footprints of conferences
e.g., reboot the SIGPLAN Climate Committee?
Cross-disciplinary

Machine learning for climate change
Cf. Computing Reviews survey by Rollnick et al.

Improving distributed systems to support climate science

Virtual conference platforms
Midspace, etc.

Carbon footprint of cloud computing / LLMs / online gaming / …
Forthcoming(?) NSF Expedition led by Brooks and Lee

And much more!
What can I do at a university / company?
Probably lots going on in your organization!

Probably easy to get involved!
Thank you!