Personal background; about you and your work

If you have an online CV/resume or LinkedIn profile, link it here. (For multiple applicants, add a link for each applicant where possible.)

https://homepages.inf.ed.ac.uk/wadler/bio.html

What is your current job title and employer? (Answer for all applicants). *

Professor of Theoretical Computer Science, University of Edinburgh

Where did you attend school, and what degree(s) did you receive? (Answer for all applicants) *

1984. Ph.D., Computer Science, Carnegie-Mellon University. Dissertation title: Listlessness is Better than Laziness. Supervisor: Nico Habermann. Committee: James Morris, Guy Steele, Bill Scherlis.
1979. M.S., Computer Science, Carnegie-Mellon University.
1977. B.S., Mathematics, with honors, Phi Beta Kappa, Stanford University.

What country(ies) do you currently live in? (Answer for all applicants). *

Scotland, UK

What is your main field of research or expertise? Answer for all applicants. *

Philip Wadler likes to introduce theory into practice, and practice into theory. An example of theory into practice: GJ, the basis for Java with generics, derives from quantifiers in second-order logic. An example of practice into theory: Featherweight Java specifies the core of Java in less than one page of rules. He is a principal designer of the Haskell programming language, contributing to its two main innovations, type classes and monads. The YouTube video of his Strange Loop talk Propositions as Types has over 100,000 views.

His main area of research is the design of programming languages, with recent work focussing on the proof assistant Agda and on ethical implications of AI.

Philip Wadler is Professor of Theoretical Computer Science at the University of Edinburgh and Senior Research Fellow at IOHK. He is a Fellow of the Royal Society, a Fellow of the Royal Society of Edinburgh, and an ACM Fellow. He is head of the steering committee for Proceedings of the ACM, past editor-in-chief of PACMPL and JFP, past chair of ACM SIGPLAN, past holder of a Royal Society-Wolfson Research Merit Fellowship, winner of the SIGPLAN Distinguished Service Award, and a winner of the POPL Most Influential Paper Award. Previously, he worked or studied at Stanford, Xerox Parc, CMU, Oxford, Chalmers, Glasgow, Bell Labs, and Avaya Labs, and visited as a guest professor in Copenhagen, Sydney, and Paris. He has an h-index of over 70 with more than 25,000 citations to his work, according to Google Scholar. He contributed to the designs of Haskell, Java, and XQuery, and is co-author of Introduction to Functional Programming (Prentice Hall, 1988), XQuery from the Experts (Addison Wesley, 2004), Generics and Collections in Java (O'Reilly, 2006), and Programming Language Foundations in Agda (2018). He has delivered invited talks in locations ranging from Aizu to Zurich.

What's a recent piece of work you've done involving AI and/or machine learning? (Link or briefly describe).

A show at the Cabaret of Dangerous Ideas, part of the Edinburgh Fringe (https://tickets.edfringe.com/whats-on#q=Wadler). Here is the summary:

"Chatbots like ChatGPT and Google's Gemini dominate the news. But the answers they give are, literally, bullshit. Historically, artificial intelligence has two strands. One is machine learning, which powers ChatGPT and art-bots like Midjourney, and which threatens to steal the work of writers and artists and put some of us out of work. The other is the 2,000-year-old discipline of logic. Professor Philip Wadler (The University of Edinburgh) takes you on a tour of the risks and promises of these two strands, and explores how they may work better together."

What's a recent piece of work you've done involving proof assistants, theorem proving, and/or formal verification? (Link or briefly describe).

A textbook, Programming Language Foundations in Agda (https://plfa.inf.ed.ac.uk). A paper describing the textbook won Best Paper at the