John **Kehayias**

Lecturer in Critical Writing
Physicist, Programmer, Writer

About me

My training is as a theoretical physicist, focusing on fundamental research of how the universe works. I love learning new things and constantly exploring different topics to broaden and deepen my understanding. From childhood, I have been fascinated by technology and continuously programming. More recently I have been teaching writing and educating students about science and technology in everyday life.

Contact

john.kehayias@protonmail.com

Key Skills

Research • Programming in multiple languages with version control and multiple contributors • Academic and public writing and presenting • Technical communication and coordination

Other Skills

Linux and web server administration • Basic cryptography (encryption, code signing, etc.) • Physics and mathematics software (Wolfram Mathematica) • Common word processing, spreadsheet, and presentation software (Microsoft Office, Google) • Photography with Adobe and open source processing software

Email
GitHub
GitLab
Google Scholar
Muck Rack

Experience

2017–Present — **Lecturer in Critical Writing**
Critical Writing Program · University of Pennsylvania
Teach academic, professional, and public writing in an award-winning program. Topics in science and math, including a popular Penn Global Seminar with travel to Japan.

2017, 2022 — **Freelance Data Scientist/Programmer**
Tenor, Mosey · San Francisco, CA
Researched and developed search and categorization algorithms for Tenor using Machine Learning techniques, `node2vec`, `word2vec`, and hierarchical representations. Implemented state business requirements and backend workflow automation for Mosey with Python and Playwright.

2011–2016 — **Postdoctoral Scholar and Research Fellow**
Vanderbilt University and Kavli IPMU (University of Tokyo) · Nashville, TN & Tokyo, Japan
Conducted research in theoretical particle physics, cosmology, gravity, and astrophysics. Gave 14 presentations and attended 9 conferences in Europe, Asia, and the US.

Education

2011 — **PhD, MS**
Physics · University of California, Santa Cruz
Advisers: Michael Dine and Stefano Profumo
Dissertation topic: Discrete R-symmetries in supersymmetric theories
Research areas: theoretical particle physics including phenomenology and supersymmetric theories, astrophysics, cosmology, and gravity

2006 — **BA**
Physics and Mathematics · Columbia University

Programming

Languages — Python, C/C++, Common Lisp, Guile Scheme, Git, shell scripting (Bash), LaTeX

Open Source — GNU Guix (operating system/distribution of GNU/Linux and package manager): **contributor with commit access** since December 2022; contribute to the GNU Guix Blog (security issue and new feature); presented at the free and open source conference FOSDEM '23; **developer/maintainer** for Nonguix (non-free Guix channel); various bug reports, fixes, and testing for other free and open source projects

Publications

Scholarship — Research papers in physics, cosmology, gravity, and astrophysics with over 15 international collaborators. Wrote more than **15 papers** published in leading journals and **cited over 300 times**. For a complete list see INSPIRE (high energy physics database). Published a paper in the Community Literacy Journal about a writing outreach program with local libraries established and run with colleagues from UPenn.

Freelance Writing — Pieces about technology, gaming and academia in Vice, Wired, and The Chronicle of Higher Education. Writer and editor for Boiling Steam, a website about gaming on Linux.