

## Lucas Charles Wilcox: One Page Summary of CV

- **Education**

- BS (2001), Mathematical and Computer Sciences, Colorado School of Mines
- MS (2002), PhD (2006), Applied Mathematics, Brown University
- Postdoc (2008), Institute for Computational Engineering and Sciences, UT Austin

- **Positions**

- Assist. (12–16), Assoc. (16–21), (21–) Full Professor Applied Mathematics, Naval Postgraduate School
- Member Technical Staff (10–12), HyPerComp, Inc., (provides solutions for computational physics)
- Research Associate (08–10), Institute for Computational Engineering and Sciences, UT Austin
- Internships at Bell Laboratories, Sandia National Laboratories, Qwest Advanced Technologies

- **Publications** ([https://scholar.google.com/citations?user=\\_jAktNkAAAAJ&hl=en](https://scholar.google.com/citations?user=_jAktNkAAAAJ&hl=en))

- 41 refereed articles (SISC, JCP, JSC, CMAME, SC'XX, Science, GJI, ...)
- h-index: 22; Total citations: 3465; (per Google Scholar on 2021-10-01)

- **Mentoring**

- Co-advised at NPS 3 Masters students, 2 postdocs, and 1 Assistant Professor

- **Reimbursable**

- Co-PI (18–21), Next Generation Earth Systems Model, CRADA with Caltech, \$865,745
- Co-PI (15), Algorithms for Optimal Maneuvering of Autonomous Vehicles, DARPA, \$55,239
- Co-PI (14), Algorithms for Optimal Maneuvering of Unmanned Vehicles, NPS CRUSER, \$59,864
- PI (13–16), Collaboration on Navy Atmosphere-Ocean Coupled Models, ONR, \$1,023,366
- Co-PI (13–15), Solving High Dimensional HJB Equations, AFOSR, \$100,000
- PI (11–12), Error-Controlled Simulations of Electromagnetic Phenomena for HPC, ARO, \$99,996
- Co-PI (09–12), Computational Science Research for Ice Sheet Modeling, NSF, \$981,327
- Co-PI (09–12), Uncertainty Quantification for Large-Scale Inverse Scattering, AFOSR, \$900,000

- **Service**

- Computers & Mathematics with Applications Editorial Board (15–)
- Co-organizer of the **p4est** summer school 2020 and mini-symposia at SIAM PP10 and ICOSAHOM 2014; Local organizing committee NAHOMCon19
- NPS Math Assoc. Chair for Research (20–), FC Alternate (18–20), NPS HPC Advisory Panel (13–)

- **Select Awards and Honors**

- 2016 NPS Carl E. and Jesse W. Menneken Faculty Award for Excellence in Scientific Research
- 2015 Unofficial finalist (with others) for the Wilkinson Prize for numerical software
- AY15 *Ranked in the top 5%* for NPS Rear Admiral Schieffelin Award for Teaching Excellence
- 2008, 2010, and 2012 Finalist (with others), ACM Gordon Bell Prize
- 2010 Research (with others) featured on the cover of August 27, 2010 issue of Science
- 2009 Winner (with others) Best Poster Supercomputing 2009 (SC09)
- 2008 Winner (with others) TeraGrid Capability Computing Challenge Award
- Undergraduate: Department's Outstanding Graduate and CSM Presidential Scholarship; Graduate: NSF VIGRE and CSRI Summer Student Fellowships; Postdoc: ICES Postdoctoral Fellow

- **Select Software**

- Co-developer (18–) of **ClimateMachine.jl**, earth systems model, by Caltech, JPL, MIT, and NPS
- Lead developer (10–12) of **HDphysics-T**, installed at the MDA-Huntsville, NAVAIR, AFRL-Wright Patterson AFB, and Eglin AFB, <https://www.hypercomp.net/CEMax.html>
- Co-developer (07–) of **p4est**, parallel mesh generator with over 500 citations, <https://p4est.org>, currently being used in the Navy's Next-Generation Weather Modeling System (NEPTUNE)