

Thomas A Caswell

CONTACT INFORMATION	Brookhaven National Laboratory Building 741 P.O. Box 5000 Upton, NY 11973-5000 <i>Date of Birth:</i> March 19, 1985 <i>Citizenship:</i> USA	(o) 631.344.3146 (c) 914.523.7002 (e) tcaswell@{bnl.gov, gmail.com} (e) tac2205@columbia.edu
APPOINTMENTS	Brookhaven National Laboratory , Upton NY <i>National Synchrotron Lightsource II (NSLS-II)</i> Computational Scientist Associate Computational Scientist Assistant Computational Scientist Research Associate	October 2020 - Present January 2017 - October 2020 April 2015 - January 2017 January 2014 - April 2015
	Columbia University , New York, NY <i>Department of Applied Physics and Applied Mathematics</i> Visiting Associate Research Scientist	October 2019 - Present
EDUCATION	University of Chicago , Chicago IL Ph.D., Physics M.S. Physics <i>Advisors:</i> Sidney R. Nagel and Margaret L. Gardel	Spring 2014 Fall 2008
	Cornell University , Ithaca, NY B.A., Physics & Mathematics <i>Research Advisor:</i> Sol M. Gruner	Spring 2007
GRANTS	Chan Zuckerberg Initiative Essential Open Source Software for Science “Matplotlib - Foundation of Scientific Visualization in Python” Thomas A. Caswell (PI) 250k\$	November 2020 - November 2021
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	BNL Lab Directed Research and Development “Accelerating materials discovery with total scattering via machine learning” Daniel Olds (PI), Stuart Campbell, Thomas A. Caswell 1 post-doc	2 years
OPEN SOURCE CONTRIBUTIONS	Matplotlib • Project Lead • Co-lead Developer • Release Manager (1.4, 1.5, 2.0, 2.1, 2.2, 3.0 & 3.2 series)	2012-Present 2016-Present 2014-2016 2014-2018, 2020
	h5py: Release Manager (2.7, 2.8, & 2.9 series) cyclcr: Lead Developer trackpy, pims: core developer	2016-2020 2015-Present 2013-Present

	pytables, numpy, scipy, conda, IPython, pandas, cython, cpython: contributor	sporadic
SERVICE	‘Scipy tools plenary session’ co-chair for SciPy pydata Global organizing committee pydataNYC organizing committee, extracurricular chair Member of nteract Code-of-conduct committee Recruitment and selection panels for scientific staff at BNL ‘Scipy tool stack’ track chair for SciPy2017 Member of Matplotlib financial committee Member of numpy financial committee PyGotham Selection Committee, University of Chicago Graduate Admissions Committee	2018-2021 2020 2019 2018-Present 2016-Present 2017 2015-Present 2015-Present 2015 2009
AWARDS	Brookhaven National Laboratory Lab Award Google Open Source Peer Bonus	2017 2017
GRANT REVIEW	Chan Zuckerberg Human Cell Atlas	2018, 2019
SOCIETY MEMBERSHIP	American Physical Society Python Software Foundation (contributing member) NumFOCUS (contributing member)	2012-2014, 2021 2018-Present 2016-Present
PUBLICATIONS (SELECTED)	<ol style="list-style-type: none"> 1. Maffettone et al. Gaming the beamlines—employing reinforcement learning to maximize scientific outcomes at large-scale user facilities, Machine Learning: Science and Technology (2021) 2, 2, 025025 2. Taffiovic et al. Teaching Software Engineering with Free Open Source Software Development: An Experience Report, Proceedings of the 52nd Hawaii International Conference on System Sciences (2019) 3. Thomas A Caswell. Dynamics of the vapor layer below a Leidenfrost drop, PRE 90, 013014 (2014) 4. Thomas A Caswell et al. Observation and Characterization of the Vestige of the Jamming Transition in a Thermal 3D System, PRE 87, 012303 (2013) 5. Thomas A Caswell et al. A High Speed Area Detector for Novel Imaging Techniques in a Scanning Transmission Electron Microscope Ultramicroscopy 109, 304-311 (2009) 	
INVITED TALKS (SELECTED)	<ol style="list-style-type: none"> 1. Thomas A. Caswell Matplotlib and Scientific Visualization, APS March Meeting (2021-03) 2. Thomas A. Caswell, h5py latest developments, HDF5 European Workshop for Science and Industry (2019-09) 3. Thomas A. Caswell, Matplotlib 2.0: One does not simply change the defaults, PLOTCON NYC (2016-11) 4. Thomas A. Caswell, Time series exploration with Matplotlib, PyData DC (2016-10) 	
CONTRIBUTED TALKS (SELECTED)	<ol style="list-style-type: none"> 1. Thomas A Caswell Separations of concerns scales PyData Global (2020-11) 2. Hannah Aizenman and Thomas A. Caswell Introduction to Matplotlib SciPy (2019-07) 3. Thomas A. Caswell, Interactive Matplotlib Tutorial pydata NYC (2017-11) 	