Freddie Witherden

List of Publications by Year
in descending order

23 papers	1,006 citations	759233 12 h-index	713466 21 g-index
23 all docs	23 docs citations	23 times ranked	840 citing authors

#	Article	IF	Citations
1	Cache blocking strategies applied to flux reconstruction. Computer Physics Communications, 2022, 271, 108193.	7.5	4
2	Hyperbolic diffusion in flux reconstruction: Optimisation through kernel fusion within tensor-product elements. Computer Physics Communications, 2022, 273, 108235.	7.5	2
3	Partially-averaged Navierâ€“Stokes simulations of turbulence within a high-order flux reconstruction framework. Journal of Computational Physics, 2022, 456, 110992.	3.8	4
4	On nodal point sets for flux reconstruction. Journal of Computational and Applied Mathematics, 2021, 381, 113014.	2.0	8
5	Inline vector compression for computational physics. Computer Physics Communications, 2021, 258, 107562.	7.5	1
6	A new family of weighted one-parameter flux reconstruction schemes. Computers and Fluids, 2021, 222, 104918.	2.5	11
7	Accuracy, stability, and performance comparison between the spectral difference and flux reconstruction schemes. Computers and Fluids, 2021, 221, 104922.	2.5	18
8	Python at Petascale With PyFR or: How I Learned to Stop Worrying and Love the Snake. Computing in Science and Engineering, 2021, 23, 29-37.	1.2	0
9	High-order accurate direct numerical simulation of flow over a MTU-T161 low pressure turbine blade. Computers and Fluids, 2021, 226, 104989.	2.5	17
10	ZEFR: A GPU-accelerated high-order solver for compressible viscous flows using the flux reconstruction method. Computer Physics Communications, 2020, 250, 107169.	7.5	23
11	Locally adaptive pseudo-time stepping for high-order Flux Reconstruction. Journal of Computational Physics, 2019, 399, 108913.	3.8	19
12	Recovering missing CFD data for high-order discretizations using deep neural networks and dynamics learning. Journal of Computational Physics, 2019, 395, 105-124.	3.8	42
13	High-order computational fluid dynamics simulations of a spinning golf ball. Sports Engineering, 2019, 22, 1.	1.1	6
14	On the spectrum of the Stegerâ€Warming fluxâ€vector splitting scheme. International Journal for Numerical Methods in Fluids, 2018, 87, 601-606.	1.6	4
15	A high-order cross-platform incompressible Navierâ€“Stokes solver via artificial compressibility with application to a turbulent jet. Computer Physics Communications, 2018, 233, 193-205.	7.5	38
16	A parallel direct cut algorithm for high-order overset methods with application to a spinning golf ball. Journal of Computational Physics, 2018, 374, 692-723.	3.8	27
17	On the utility of GPU accelerated high-order methods for unsteady flow simulations: A comparison with industry-standard tools. Journal of Computational Physics, 2017, 334, 497-521.	3.8	105
18	Towards Green Aviation with Python at Petascale. , 2016, , .		30

#	Article	IF	Citations
19	High-Order Flux Reconstruction Schemes. Handbook of Numerical Analysis, 2016, 17, 227-263.	1.8	12
20	Heterogeneous computing on mixed unstructured grids with PyFR. Computers and Fluids, 2015, 120, 173-186.	2.5	57
21	An extended range of stable-symmetric-conservative Flux Reconstruction correction functions. Computer Methods in Applied Mechanics and Engineering, 2015, 296, 248-272.	6.6	296
22	On the identification of symmetric quadrature rules for finite element methods. Computers and Mathematics With Applications, 2015, 69, 1232-1241.	2.7	75
23	PyFR: An open source framework for solving advectionâ€“diffusion type problems on streaming architectures using the flux reconstruction approach. Computer Physics Communications, 2014, 185, 3028-3040.	7.5	207