

# David L Darmofal

## List of Publications by Year in descending order

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38  
papers

2,330  
citations

567281

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552781

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g-index

38  
all docs

38  
docs citations

38  
times ranked

651  
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of Thermochemical Non-Equilibrium Models in Hypersonic Flows Using Output-Based Mesh Adaptation. , 2022, , .		0
2	Output-Based Adaptive Reynolds-Averaged Navier-Stokes Higher-Order Finite Element Solutions on a Multielement Airfoil. AIAA Journal, 2021, 59, 2532-2545.	2.6	12
3	Anisotropic mesh adaptation for continuous finite element discretization through mesh optimization via error sampling and synthesis. Journal of Computational Physics, 2020, 420, 109620.	3.8	7
4	Four-Dimensional Anisotropic Mesh Adaptation. CAD Computer Aided Design, 2020, 129, 102915.	2.7	18
5	Mesh Optimization via Error Sampling and Synthesis: An Update. , 2020, , .		12
6	A Variational Multiscale Method with Discontinuous Subscales for Output-Based Adaptation of Aerodynamic Flows. , 2020, , .		16
7	Adjoint analysis of Buckley-Leverett and two-phase flow equations. Computational Geosciences, 2018, 22, 527-542.	2.4	5
8	SANS RANS solutions for 3D benchmark configurations. , 2018, , .		21
9	Well-posed Subsonic Inflow/Outflow Boundary Conditions for the Navier-Stokes Equations. , 2018, , .		1
10	A space-time adaptive method for reservoir flows: formulation and one-dimensional application. Computational Geosciences, 2018, 22, 107-123.	2.4	15
11	Analysis of output-based error estimation for finite element methods. Applied Numerical Mathematics, 2017, 118, 182-202.	2.1	12
12	An adaptive simplex cut-cell method for high-order discontinuous Galerkin discretizations of conjugate heat transfer problems. International Journal for Numerical Methods in Engineering, 2017, 110, 350-378.	2.8	2
13	Application of Higher-Order Adaptive Method to Reynolds-Averaged Navier-Stokes Test Cases. AIAA Journal, 2016, 54, 2626-2644.	2.6	11
14	Application of a Higher-order Adaptive Method to RANS Test Cases (Invited). , 2015, , .		4
15	An Adaptive Simplex Cut-Cell Method for High-Order Discontinuous Galerkin Discretizations of Conjugate Heat Transfer Problems. , 2015, , .		0
16	An adaptive simplex cut-cell method for high-order discontinuous Galerkin discretizations of elliptic interface problems and conjugate heat transfer problems. Journal of Computational Physics, 2014, 278, 445-468.	3.8	18
17	A robust simplex cut-cell method for high-order discontinuous Galerkin discretizations of three-dimensional aerodynamic problems. , 2013, , .		5
18	Progress Towards a Higher-order Adaptive Solver for Aerodynamics. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
19	Anisotropic Output-Based Mesh Optimization for Unsteady Flows. , 2013, , .		0
20	An adaptive simplex cut-cell method for high-order discontinuous Galerkin discretizations of multi-material and multi-physics problems. , 2013, , .		3
21	An optimization-based framework for anisotropic simplex mesh adaptation. Journal of Computational Physics, 2012, 231, 7626-7649.	3.8	104
22	On the impact of triangle shapes for boundary layer problems using high-order finite element discretization. Journal of Computational Physics, 2012, 231, 541-557.	3.8	6
23	Sensitivity analysis of limit cycle oscillations. Journal of Computational Physics, 2012, 231, 3228-3245.	3.8	22
24	Review of Output-Based Error Estimation and Mesh Adaptation in Computational Fluid Dynamics. AIAA Journal, 2011, 49, 673-694.	2.6	346
25	MASSIVELY PARALLEL SOLUTION TECHNIQUES FOR HIGHER-ORDER FINITE-ELEMENT DISCRETIZATIONS IN CFD. Advances in Computational Fluid Dynamics, 2011, , 33-65.	0.1	0
26	BDDC preconditioning for high-order Galerkin Least-Squares methods using inexact solvers. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 2958-2969.	6.6	2
27	Shock capturing with PDE-based artificial viscosity for DGFEM: Part I. Formulation. Journal of Computational Physics, 2010, 229, 1810-1827.	3.8	156
28	Validation of an Output-Adaptive, Tetrahedral Cut-Cell Method for Sonic Boom Prediction. AIAA Journal, 2010, 48, 1928-1945.	2.6	21
29	Effect of Small-Scale Output Unsteadiness on Adjoint-Based Sensitivity. AIAA Journal, 2010, 48, 2611-2623.	2.6	16
30	Preconditioning methods for discontinuous Galerkin solutions of the Navier–Stokes equations. Journal of Computational Physics, 2009, 228, 3917-3935.	3.8	65
31	Analysis of Dual Consistency for Discontinuous Galerkin Discretizations of Source Terms. SIAM Journal on Numerical Analysis, 2009, 47, 3507-3525.	2.3	36
32	A triangular cut-cell adaptive method for high-order discretizations of the compressible Navier–Stokes equations. Journal of Computational Physics, 2007, 225, 1653-1672.	3.8	125
33	p-Multigrid solution of high-order discontinuous Galerkin discretizations of the compressible Navier–Stokes equations. Journal of Computational Physics, 2005, 207, 92-113.	3.8	295
34	An implicit, exact dual adjoint solution method for turbulent flows on unstructured grids. Computers and Fluids, 2004, 33, 1131-1155.	2.5	156
35	Anisotropic grid adaptation for functional outputs: application to two-dimensional viscous flows. Journal of Computational Physics, 2003, 187, 22-46.	3.8	335
36	A Quasi-Minimal Residual Method for Simultaneous Primal-Dual Solutions and Superconvergent Functional Estimates. SIAM Journal of Scientific Computing, 2003, 24, 1693-1709.	2.8	5

#	ARTICLE	IF	CITATIONS
37	Grid Adaptation for Functional Outputs: Application to Two-Dimensional Inviscid Flows. Journal of Computational Physics, 2002, 176, 40-69.	3.8	287
38	Adjoint Error Estimation and Grid Adaptation for Functional Outputs: Application to Quasi-One-Dimensional Flow. Journal of Computational Physics, 2000, 164, 204-227.	3.8	191