David C Del Rey FernÃ¡ndez

List of Publications by Year
in descending order

33 papers	884 citations	567281 15 h-index	642732 23 g-index
33 all docs	33 docs citations	33 times ranked	202 citing authors

#	Article	IF	Citations
1	Review of summation-by-parts operators with simultaneous approximation terms for the numerical solution of partial differential equations. Computers and Fluids, 2014, 95, 171-196.	2.5	246
2	A generalized framework for nodal first derivative summation-by-parts operators. Journal of Computational Physics, 2014, 266, 214-239.	3.8	121
3	Entropy-stable summation-by-parts discretization of the Euler equations on general curved elements. Journal of Computational Physics, 2018, 356, 410-438.	3.8	74
4	Multidimensional Summation-by-Parts Operators: General Theory and Application to Simplex Elements. SIAM Journal of Scientific Computing, 2016, 38, A1935-A1958.	2.8	73
5	Entropy Stable Space–Time Discontinuous Galerkin Schemes with Summation-by-Parts Property for Hyperbolic Conservation Laws. Journal of Scientific Computing, 2019, 80, 175-222.	2.3	43
6	An Entropy Stable h/p Non-Conforming Discontinuous Galerkin Method with the Summation-by-Parts Property. Journal of Scientific Computing, 2018, 77, 689-725.	2.3	39
7	Efficient Entropy Stable Gauss Collocation Methods. SIAM Journal of Scientific Computing, 2019, 41, A2938-A2966.	2.8	35
8	Simultaneous Approximation Terms for Multi-dimensional Summation-by-Parts Operators. Journal of Scientific Computing, 2018, 75, 83-110.	2.3	26
9	Conservative and entropy stable solid wall boundary conditions for the compressible Navier–Stokes equations: Adiabatic wall and heat entropy transfer. Journal of Computational Physics, 2019, 397, 108775.	3.8	26
10	SBP–SAT finite difference discretization of acoustic wave equations on staggered block-wise uniform grids. Journal of Computational and Applied Mathematics, 2019, 348, 421-444.	2.0	22
11	High-order accurate entropy-stable discontinuous collocated Galerkin methods with the summation-by-parts property for compressible CFD frameworks: Scalable SSDC algorithms and flow solver. Journal of Computational Physics, 2021, 424, 109844.	3.8	22
12	Staggered-grid entropy-stable multidimensional summation-by-parts discretizations on curvilinear coordinates. Journal of Computational Physics, 2019, 392, 161-186.	3.8	21
13	On the robustness and performance of entropy stable collocated discontinuous Galerkin methods. Journal of Computational Physics, 2021, 426, 109891.	3.8	19
14	Extension of Tensor-Product Generalized and Dense-Norm Summation-by-Parts Operators to Curvilinear Coordinates. Journal of Scientific Computing, 2019, 80, 1957-1996.	2.3	17
15	Conservative and Stable Degree Preserving SBP Operators for Non-conforming Meshes. Journal of Scientific Computing, 2018, 75, 657-686.	2.3	16
16	Generalized Summation-by-Parts Operators for the Second Derivative. SIAM Journal of Scientific Computing, 2015, 37, A2840-A2864.	2.8	15
17	Entropy stable spectral collocation schemes for the 3-D Navier-Stokes equations on dynamic unstructured grids. Journal of Computational Physics, 2019, 399, 108897.	3.8	11
18	Optimized geometrical metrics satisfying free-stream preservation. Computers and Fluids, 2020, 207, 104555.	2.5	8

#	Article	IF	Citations
19	Entropy-stable p-nonconforming discretizations with the summation-by-parts property for the compressible Navierâ€"Stokes equations. Computers and Fluids, 2020, 210, 104631.	2.5	8
20	Entropy stable h/p-nonconforming discretization with the summation-by-parts property for the compressible Euler and Navierâ€"Stokes equations. SN Partial Differential Equations and Applications, 2020, 1, 1.	0.6	7
21	Corner-corrected diagonal-norm summation-by-parts operators for the first derivative with increased order of accuracy. Journal of Computational Physics, 2017, 330, 902-923.	3.8	6
22	Nonlinearly stable flux reconstruction high-order methods in split form. Journal of Computational Physics, 2022, 458, 111094.	3.8	6
23	High-Order, Entropy-Conservative Discretizations of the Euler Equations for Complex Geometries. , 2017, , .		5
24	Provably stable flux reconstruction high-order methods on curvilinear elements. Journal of Computational Physics, 2022, 463, 111259.	3.8	5
25	Opportunities for efficient high-order methods based on the summation-by-parts property (Invited). , 2015, , .		4
26	Simultaneous Approximation Terms for Multidimensional Summation-by-parts Operators. , 2016, , .		4
27	New Diagonal-Norm Summation-by-Parts Operators for the First Derivative with Increased Order of Accuracy. , 2015, , .		2
28	Tensor-Product Summation-by-Parts Operators. , 2017, , .		2
29	Mortar-based Entropy-Stable Discontinuous Galerkin Methods on Non-conforming Quadrilateral and Hexahedral Meshes. Journal of Scientific Computing, 2021, 89, 1.	2.3	1
30	High-Order Compact-Stencil Summation-By-Parts Operators for the Compressible Navier-Stokes Equations. , 2013, , .		0
31	Development of Generalized Summation-by-Parts Operators for the Second Derivative with Variable Coefficients. , 2015, , .		0
32	Pade Summation-by-parts operators for spectral resolvability on bounded domains: The first derivative. , 2019, , .		0
33	Generalized Summation by Parts Operators: Second Derivative and Time-Marching Methods. Lecture Notes in Computational Science and Engineering, 2015, , 207-215.	0.3	0