Dmitri Kuzmin

List of Publications by Year
in descending order

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44 papers	1,135 citations	687220 13 h-index	395590 33 g-index
44 all docs	44 docs citations	44 times ranked	887 citing authors

#	Article	IF	Citations
1	A vertex-based hierarchical slope limiter for <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si27.gif" display="inline" overflow="scroll"><mml:mi>p</mml:mi></mml:math>-adaptive discontinuous Galerkin methods. Journal of Computational and Applied Mathematics, 2010, 233, 3077-3085.	1.1	407
2	Explicit and implicit FEM-FCT algorithms with flux linearization. Journal of Computational Physics, 2009, 228, 2517-2534.	1.9	106
3	Slope limiting for discontinuous Galerkin approximations with a possibly nonâ€orthogonal Taylor basis. International Journal for Numerical Methods in Fluids, 2013, 71, 1178-1190.	0.9	45
4	Linearity-preserving flux correction and convergence acceleration for constrained Galerkin schemes. Journal of Computational and Applied Mathematics, 2012, 236, 2317-2337.	1.1	43
5	Flux-corrected transport algorithms for continuous Galerkin methods based on high order Bernstein finite elements. Journal of Computational Physics, 2017, 344, 151-186.	1.9	42
6	Failsafe flux limiting and constrained data projections for equations of gas dynamics. Journal of Computational Physics, 2010, 229, 8766-8779.	1.9	39
7	Hierarchical slope limiting in explicit and implicit discontinuous Galerkin methods. Journal of Computational Physics, 2014, 257, 1140-1162.	1.9	39
8	Monolithic convex limiting for continuous finite element discretizations of hyperbolic conservation laws. Computer Methods in Applied Mechanics and Engineering, 2020, 361, 112804.	3.4	35
9	A minimization-based finite element formulation for interface-preserving level set reinitialization. Computing (Vienna/New York), 2013, 95, 13-25.	3.2	21
10	Linearity-preserving monotone local projection stabilization schemes for continuous finite elements. Computer Methods in Applied Mechanics and Engineering, 2017, 322, 23-41.	3.4	19
11	Synchronized flux limiting for gas dynamics variables. Journal of Computational Physics, 2016, 326, 973-990.	1.9	17
12	Algebraic Flux Correction I. Scientific Computation, 2012, , 145-192.	0.2	17
13	Goal-oriented a posteriori error estimates for transport problems. Mathematics and Computers in Simulation, 2010, 80, 1674-1683.	2.4	15
14	Limiter-based entropy stabilization of semi-discrete and fully discrete schemes for nonlinear hyperbolic problems. Computer Methods in Applied Mechanics and Engineering, 2022, 389, 114428.	3.4	15
15	A monolithic conservative level set method with built-in redistancing. Journal of Computational Physics, 2019, 379, 262-278.	1.9	14
16	Entropy conservation property and entropy stabilization of high-order continuous Galerkin approximations to scalar conservation laws. Computers and Fluids, 2020, 213, 104742.	1.3	14
17	Finite Element Methods for Computational Fluid Dynamics: A Practical Guide. , 2014, , .		14
18	New directional vector limiters for discontinuous Galerkin methods. Journal of Computational Physics, 2019, 384, 308-325.	1.9	13

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19	Matrix-free subcell residual distribution for Bernstein finite element discretizations of linear advection equations. Computer Methods in Applied Mechanics and Engineering, 2020, 359, 112658.	3.4	13
20	Subcell flux limiting for high-order Bernstein finite element discretizations of scalar hyperbolic conservation laws. Journal of Computational Physics, 2020, 411, 109411.	1.9	13
21	Anisotropic slope limiting for discontinuous Galerkin methods. International Journal for Numerical Methods in Fluids, 2017, 84, 543-565.	0.9	12
22	A partition of unity approach to adaptivity and limiting in continuous finite element methods. Computers and Mathematics With Applications, 2019, 78, 944-957.	1.4	12
23	Bound-preserving flux limiting schemes for DGÂdiscretizations of conservation laws with applications to the Cahnâ€“Hilliard equation. Computer Methods in Applied Mechanics and Engineering, 2020, 359, 112665.	3.4	12
24	Entropy stabilization and property-preserving limiters for â„™₁ discontinuous Galerkin discretizations of scalar hyperbolic problems. Journal of Numerical Mathematics, 2021, 29, 307-322.	1.8	12
25	Gradientâ€based nodal limiters for artificial diffusion operators in finite element schemes for transport equations. International Journal for Numerical Methods in Fluids, 2017, 84, 675-695.	0.9	11
26	Local bounds preserving stabilization for continuous Galerkin discretization of hyperbolic systems. Journal of Computational Physics, 2018, 361, 82-110.	1.9	11
27	Algebraic entropy fixes and convex limiting for continuous finite element discretizations of scalar hyperbolic conservation laws. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113370.	3.4	11
28	Limiting and divergence cleaning for continuous finite element discretizations of the MHD equations. Journal of Computational Physics, 2020, 407, 109230.	1.9	11
29	Matrix-free subcell residual distribution for Bernstein finite elements: Monolithic limiting. Computers and Fluids, 2020, 200, 104451.	1.3	11
30	Goal-oriented mesh adaptation for flux-limited approximations to steady hyperbolic problems. Journal of Computational and Applied Mathematics, 2010, 233, 3113-3120.	1.1	10
31	Scale separation in fast hierarchical solvers for discontinuous Galerkin methods. Applied Mathematics and Computation, 2015, 266, 838-849.	1.4	10
32	Optimal control for reinitialization in finite element level set methods. International Journal for Numerical Methods in Fluids, 2017, 84, 292-305.	0.9	10
33	A flux-corrected RBF-FD method for convection dominated problems in domains and on manifolds. Journal of Numerical Mathematics, 2019, 27, 253-269.	1.8	9
34	A linearity preserving nodal variation limiting algorithm for continuous Galerkin discretization of ideal MHD equations. Journal of Computational Physics, 2020, 410, 109390.	1.9	9
35	Bound-preserving Flux Limiting for High-Order Explicit Rungeâ€“Kutta Time Discretizations of Hyperbolic Conservation Laws. Journal of Scientific Computing, 2022, 91, 1.	1.1	9
36	An optimization-based approach to enforcing mass conservation in level set methods. Journal of Computational and Applied Mathematics, 2014, 258, 78-86.	1.1	8

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37	Locally bound-preserving enriched Galerkin methods for the linear advection equation. Computers and Fluids, 2020, 205, 104525.	1.3	7
38	An FCT finite element scheme for ideal MHD equations in 1D and 2D. Journal of Computational Physics, 2017, 338, 585-605.	1.9	5
39	A new perspective on flux and slope limiting in discontinuous Galerkin methods for hyperbolic conservation laws. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113569.	3.4	5
40	Optimal control for mass conservative level set methods. Journal of Computational and Applied Mathematics, 2014, 270, 343-352.	1.1	4
41	A nonlinear ALEâ€FCT scheme for nonâ€equilibrium reactive solute transport in moving domains. International Journal for Numerical Methods in Fluids, 2014, 76, 875-908.	0.9	2
42	An assessment of solvers for algebraically stabilized discretizations of convectionâ€“diffusionâ€“reaction equations. Journal of Numerical Mathematics, 2023, 31, 79-103.	1.8	2
43	An unfitted finite element method using level set functions for extrapolation into deformable diffuse interfaces. Journal of Computational Physics, 2022, 461, 111218.	1.9	1
44	Gradient-Based Limiting and Stabilization of Continuous Galerkin Methods. Lecture Notes in Computational Science and Engineering, 2020, , 331-339.	0.1	0