

Per-Olof Persson

List of Publications by Year in descending order

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83
papers

4,140
citations

377584

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83
docs citations

83
times ranked

3011
citing authors

#	ARTICLE	IF	CITATIONS
1	Agglomeration-based geometric multigrid solvers for compact discontinuous Galerkin discretizations on unstructured meshes. <i>Journal of Computational Physics</i> , 2022, 449, 110775.	1.9	1
2	A discontinuous Galerkin method for shock capturing using a mixed high-order and sub-grid low-order approximation space. <i>Journal of Computational Physics</i> , 2022, 449, 110765.	1.9	4
3	Implicit shock tracking for unsteady flows by the method of lines. <i>Journal of Computational Physics</i> , 2022, 454, 110906.	1.9	7
4	High-order accurate finite difference discretisations on fully unstructured dual quadrilateral meshes. <i>Journal of Computational Physics</i> , 2022, , 111201.	1.9	0
5	High-Order Implicit Shock Tracking (HOIST). <i>SEMA SIMAI Springer Series</i> , 2022, , 233-259.	0.4	0
6	High-Order Accurate Time Integration and Efficient Implicit Solvers. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2021, , 239-259.	0.3	1
7	A Computational Study of LEV development on Compliant 2D Wings using a Low-Fidelity FSI model. , 2021, , .		0
8	An r-Adaptive, High-Order Discontinuous Galerkin Method for Flows with Attached Shocks. , 2020, , .		3
9	Implicit shock tracking using an optimization-based high-order discontinuous Galerkin method. <i>Journal of Computational Physics</i> , 2020, 410, 109385.	1.9	40
10	A Computational Study of the Impact of Fluid Structure Interaction on the Development and Persistence of 2D LEVs in Low Reynolds Number Flow Applications. , 2020, , .		1
11	Blood flow imaging by optimal matching of computational fluid dynamics to 4D flow data. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 2231-2245.	1.9	32
12	High-order partitioned spectral deferred correction solvers for multiphysics problems. <i>Journal of Computational Physics</i> , 2020, 412, 109441.	1.9	9
13	Analysis and Entropy Stability of the Line-Based Discontinuous Galerkin Method. <i>Journal of Scientific Computing</i> , 2019, 80, 376-402.	1.1	15
14	A high-order partitioned solver for general multiphysics problems and its applications in optimization. , 2019, , .		1
15	An Adjoint Method using Fully Implicit Runge-Kutta Schemes for Optimization of Flow Problems. , 2019, , .		1
16	An Optimization-Based Discontinuous Galerkin Approach for High-Order Accurate Shock Tracking with Guaranteed Mesh Quality. , 2019, , .		0
17	High-order wall-resolved large eddy simulation of transonic buffet on the OAT15A airfoil. , 2019, , .		7
18	High-order, linearly stable, partitioned solvers for general multiphysics problems based on implicit-explicit Runge-Kutta schemes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 674-706.	3.4	16

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19	On the convergence of iterative solvers for polygonal discontinuous Galerkin discretizations. Communications in Applied Mathematics and Computational Science, 2018, 13, 27-51.	0.7	1
20	An optimization-based approach for high-order accurate discretization of conservation laws with discontinuous solutions. Journal of Computational Physics, 2018, 365, 105-134.	1.9	44
21	Interior penalty tensor-product preconditioners for high-order discontinuous Galerkin discretizations. , 2018, , .		1
22	Validation of High-Order Wall-Resolved Large-Eddy Simulation of Vertical-Axis Wind Turbines. , 2018, , .		0
23	Approximate tensor-product preconditioners for very high order discontinuous Galerkin methods. Journal of Computational Physics, 2018, 354, 344-369.	1.9	38
24	Energetically Optimal Flapping Wing Motions via Adjoint-Based Optimization and High-Order Discretizations. The IMA Volumes in Mathematics and Its Applications, 2018, , 259-289.	0.5	1
25	Stage-parallel fully implicit Runge-Kutta solvers for discontinuous Galerkin fluid simulations. Journal of Computational Physics, 2017, 335, 700-717.	1.9	47
26	High-Order DNS and LES Simulations Using an Implicit Tensor-Product Discontinuous Galerkin Method. , 2017, , .		3
27	Energetically Optimal Flapping Flight via a Fully Discrete Adjoint Method with Explicit Treatment of Flapping Frequency. , 2017, , .		2
28	Celebrating the 60 th birthday of Professor David A. Kopriva. Computers and Fluids, 2016, 139, 1.	1.3	1
29	An adjoint method for a high-order discretization of deforming domain conservation laws for optimization of flow problems. Journal of Computational Physics, 2016, 326, 516-543.	1.9	22
30	A fully discrete adjoint method for optimization of flow problems on deforming domains with time-periodicity constraints. Computers and Fluids, 2016, 139, 130-147.	1.3	9
31	Flow-fracture transition in a volcanic mush plug may govern normal eruptions at Stromboli. Geophysical Research Letters, 2016, 43, 12,071.	1.5	45
32	High-Order, Time-Dependent Aerodynamic Optimization using a Discontinuous Galerkin Discretization of the Navier-Stokes Equations. , 2016, , .		2
33	High-order unstructured curved mesh generation using the Winslow equations. Journal of Computational Physics, 2016, 307, 1-14.	1.9	66
34	23rd International Meshing Roundtable"Mesh modeling for simulations and visualization. CAD Computer Aided Design, 2016, 72, 1-2.	1.4	0
35	Implicit Large-Eddy Simulation of 2D Counter-Rotating Vertical-Axis Wind Turbines. , 2016, , .		6
36	Validation of a High-Order Large-Eddy Simulation Solver Using a Vertical-Axis Wind Turbine. AIAA Journal, 2016, 54, 101-112.	1.5	9

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37	Nonlinear Elasticity for Mesh Deformation with High-Order Discontinuous Galerkin Methods for the Navier-Stokes Equations on Deforming Domains. Lecture Notes in Computational Science and Engineering, 2015, , 73-85.	0.1	10
38	Validation of a High-Order Implicit LES Solver for the Simulation of a Low-Reynolds-Number Vertical-Axis Wind Turbine. , 2015, , .		0
39	A high-order discontinuous Galerkin method with unstructured space-time meshes for two-dimensional compressible flows on domains with large deformations. Computers and Fluids, 2015, 118, 53-68.	1.3	39
40	High-order Discontinuous Galerkin Simulations on Moving Domains using ALE Formulations and Local Remeshing and Projections. , 2015, , .		7
41	Low-temperature random matrix theory at the soft edge. Journal of Mathematical Physics, 2014, 55, .	0.5	2
42	An efficient time-domain perfectly matched layers formulation for elastodynamics on spherical domains. International Journal for Numerical Methods in Engineering, 2014, 100, 419-441.	1.5	6
43	High-order accurate fluid-structure simulation of a tuning fork. Computers and Fluids, 2014, 98, 230-238.	1.3	1
44	A high-order discontinuous Galerkin method for fluid-structure interaction with efficient implicit-explicit time stepping. Journal of Computational Physics, 2014, 272, 455-470.	1.9	39
45	Implicit Geometry Meshing for the simulation of Rotary Friction Welding. Journal of Computational Physics, 2014, 270, 478-489.	1.9	11
46	Multiple-Fidelity Computational Framework for the Design of Efficient Flapping Wings. AIAA Journal, 2014, 52, 2840-2854.	1.5	10
47	Celebrating the 80th Birthday of Professor Antony Jameson. Computers and Fluids, 2014, 98, 1-2.	1.3	2
48	High-order CFD methods: current status and perspective. International Journal for Numerical Methods in Fluids, 2013, 72, 811-845.	0.9	704
49	A sparse and high-order accurate line-based discontinuous Galerkin method for unstructured meshes. Journal of Computational Physics, 2013, 233, 414-429.	1.9	29
50	Shock Capturing for High-Order Discontinuous Galerkin Simulation of Transient Flow Problems. , 2013, , .		29
51	Generating LEVs on Energetically Optimal, Flapping Wing Designs by Modulating Leading Edge Angle. , 2013, , .		2
52	Performance tuning of Newton-GMRES methods for discontinuous Galerkin discretizations of the Navier-Stokes equations. , 2013, , .		4
53	A High-Order Implicit-Explicit Fluid-Structure Interaction Method for Flapping Flight. , 2013, , .		1
54	A Discontinuous Galerkin Method for the Navier-Stokes Equations on Deforming Domains using Unstructured Moving Space-Time Meshes. , 2013, , .		5

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55	High-Order Navier-Stokes Simulations Using a Sparse Line-Based Discontinuous Galerkin Method. , 2012, , .		9
56	A time-domain Discontinuous Galerkin method for mechanical resonator quality factor computations. Journal of Computational Physics, 2012, 231, 6380-6392.	1.9	4
57	Numerical simulation of flapping wings using a panel method and a high-order Navier-Stokes solver. International Journal for Numerical Methods in Engineering, 2012, 89, 1296-1316.	1.5	27
58	Preliminary Investigation Into the Effects of Cross-Flow on Low Reynolds Number Transition. , 2011, , .		3
59	High Fidelity Simulations of Flapping Wings Designed for Energetically Optimal Flight. , 2011, , .		2
60	High-Order LES Simulations using Implicit-Explicit Runge-Kutta Schemes. , 2011, , .		17
61	Implicit Large Eddy Simulation of transition to turbulence at low Reynolds numbers using a Discontinuous Galerkin method. International Journal for Numerical Methods in Engineering, 2011, 87, 232-261.	1.5	168
62	HIGH-ORDER DISCONTINUOUS GALERKIN METHODS FOR CFD. Advances in Computational Fluid Dynamics, 2011, , 119-152.	0.1	25
63	Energetics Considerations in Parachute Aerodynamic Design. , 2011, , .		0
64	A discontinuous Galerkin front tracking method for two-phase flows with surface tension. Computers and Fluids, 2010, 39, 1-14.	1.3	27
65	Partitioning a Planar Graph of Girth 10 into a Forest and a Matching. Studies in Applied Mathematics, 2010, 124, 213-228.	1.1	4
66	The Numerical Simulation of Flapping Wings at Low Reynolds Numbers. , 2010, , .		20
67	Discontinuous Galerkin solution of the Navier-Stokes equations on deformable domains. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1585-1595.	3.4	187
68	Implicit Large Eddy Simulation of Transitional Flows Over Airfoils and Wings. , 2009, , .		31
69	Curved Mesh Generation and Mesh Refinement using Lagrangian Solid Mechanics. , 2009, , .		115
70	Scalable Parallel Newton-Krylov Solvers for Discontinuous Galerkin Discretizations. , 2009, , .		20
71	Newton-GMRES Preconditioning for Discontinuous Galerkin Discretizations of the Navier-Stokes Equations. SIAM Journal of Scientific Computing, 2008, 30, 2709-2733.	1.3	173
72	The Compact Discontinuous Galerkin (CDG) Method for Elliptic Problems. SIAM Journal of Scientific Computing, 2008, 30, 1806-1824.	1.3	278

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73	A Computational Framework for Fluid Structure Interaction in Biologically Inspired Flapping Flight. , 2007, , .		37
74	A High Order Discontinuous Galerkin Method for Fluid-Structure Interaction. , 2007, , .		14
75	RANS Solutions Using High Order Discontinuous Galerkin Methods. , 2007, , .		48
76	Sub-Cell Shock Capturing for Discontinuous Galerkin Methods. , 2006, , .		323
77	An Efficient Low Memory Implicit DG Algorithm for Time Dependent Problems. , 2006, , .		19
78	Mesh size functions for implicit geometries and PDE-based gradient limiting. Engineering With Computers, 2006, 22, 95-109.	3.5	70
79	for Surrogate Geometry On the Use of Loop Subdivision Surfaces. , 2006, , 375-392.		5
80	A Simple Mesh Generator in MATLAB. SIAM Review, 2004, 46, 329-345.	4.2	1,131
81	Smoothing by Savitzky-Golay and Legendre Filters. The IMA Volumes in Mathematics and Its Applications, 2003, , 301-315.	0.5	34
82	Simulation of a Waveguide Filter Using Wavelet-Based Numerical Homogenization. Journal of Computational Physics, 2001, 166, 361-382.	1.9	11
83	Circuit simulation and moving mesh generation. , 0, , .		2