

Peter Hansbo

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1125945/publications.pdf>

Version: 2024-02-01

104
papers

6,774
citations

109137

35
h-index

60497

81
g-index

104
all docs

104
docs citations

104
times ranked

2458
citing authors

#	ARTICLE	IF	CITATIONS
1	Error Estimates for the Smagorinsky Turbulence Model: Enhanced Stability Through Scale Separation and Numerical Stabilization. <i>Journal of Mathematical Fluid Mechanics</i> , 2022, 24, 1.	0.4	5
2	Nitsche's finite element method for model coupling in elasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 392, 114707.	3.4	3
3	Augmented Lagrangian Method for Thin Plates with Signorini Boundaries. <i>Lecture Notes in Computational Science and Engineering</i> , 2021, , 509-519.	0.1	1
4	Analysis of finite element methods for vector Laplacians on surfaces. <i>IMA Journal of Numerical Analysis</i> , 2020, 40, 1652-1701.	1.5	24
5	A stabilized cut streamline diffusion finite element method for convection-diffusion problems on surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 358, 112645.	3.4	6
6	Dirichlet boundary value correction using Lagrange multipliers. <i>BIT Numerical Mathematics</i> , 2020, 60, 235-260.	1.0	7
7	Application of a minimal compatible element to incompressible and nearly incompressible continuum mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113224.	3.4	5
8	A cut finite element method for a model of pressure in fractured media. <i>Numerische Mathematik</i> , 2020, 146, 783-818.	0.9	8
9	Cut Bogner-Fox-Schmit elements for plates. <i>Advanced Modeling and Simulation in Engineering Sciences</i> , 2020, 7, .	0.7	12
10	Finite element procedures for computing normals and mean curvature on triangulated surfaces and their use for mesh refinement. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 372, 113445.	3.4	5
11	A stable cut finite element method for partial differential equations on surfaces: The Helmholtz-Beltrami operator. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112803.	3.4	3
12	Cut finite elements for convection in fractured domains. <i>Computers and Fluids</i> , 2019, 179, 726-734.	1.3	18
13	Hybridized CutFEM for Elliptic Interface Problems. <i>SIAM Journal of Scientific Computing</i> , 2019, 41, A3354-A3380.	1.3	12
14	A cut finite element method for elliptic bulk problems with embedded surfaces. <i>GEM - International Journal on Geomathematics</i> , 2019, 10, 10.	0.7	3
15	Cut topology optimization for linear elasticity with coupling to parametric nondesign domain regions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 350, 462-479.	3.4	13
16	Stabilized CutFEM for the convection problem on surfaces. <i>Numerische Mathematik</i> , 2019, 141, 103-139.	0.9	9
17	Augmented Lagrangian finite element methods for contact problems. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 2019, 53, 173-195.	0.8	15
18	Finite element approximation of the Laplace-Beltrami operator on a surface with boundary. <i>Numerische Mathematik</i> , 2019, 141, 141-172.	0.9	12

#	ARTICLE	IF	CITATIONS
19	A simple finite element method for elliptic bulk problems with embedded surfaces. Computational Geosciences, 2019, 23, 189-199.	1.2	9
20	A Cut Finite Element Method with Boundary Value Correction for the Incompressible Stokes Equations. Lecture Notes in Computational Science and Engineering, 2019, , 183-192.	0.1	2
21	Augmented Lagrangian and Galerkin least-squares methods for membrane contact. International Journal for Numerical Methods in Engineering, 2018, 114, 1179-1191.	1.5	7
22	A simple approach for finite element simulation of reinforced plates. Finite Elements in Analysis and Design, 2018, 142, 51-60.	1.7	3
23	Solving ill-posed control problems by stabilized finite element methods: an alternative to Tikhonov regularization. Inverse Problems, 2018, 34, 035004.	1.0	26
24	Shape optimization using the cut finite element method. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 242-261.	3.4	66
25	Cut finite element methods for partial differential equations on embedded manifolds of arbitrary codimensions. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 2247-2282.	0.8	32
26	A cut discontinuous Galerkin method for the Laplace-Beltrami operator. IMA Journal of Numerical Analysis, 2017, 37, 138-169.	1.5	34
27	A cut finite element method for the Bernoulli free boundary value problem. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 598-618.	3.4	13
28	A Nitsche method for elliptic problems on composite surfaces. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 505-525.	3.4	7
29	A stabilized cut finite element method for the Darcy problem on surfaces. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 298-318.	3.4	16
30	The Penalty-Free Nitsche Method and Nonconforming Finite Elements for the Signorini Problem. SIAM Journal on Numerical Analysis, 2017, 55, 2523-2539.	1.1	13
31	Continuous/discontinuous finite element modelling of Kirchhoff plate structures in \mathbb{R}^3 using tangential differential calculus. Computational Mechanics, 2017, 60, 693-702.	2.2	10
32	Optimal design of fibre reinforced membrane structures. Structural and Multidisciplinary Optimization, 2017, 56, 781-789.	1.7	7
33	Galerkin least squares finite element method for the obstacle problem. Computer Methods in Applied Mechanics and Engineering, 2017, 313, 362-374.	3.4	16
34	Cut Finite Element Methods for Linear Elasticity Problems. Lecture Notes in Computational Science and Engineering, 2017, , 25-63.	0.1	11
35	A cut finite element method with boundary value correction. Mathematics of Computation, 2017, 87, 633-657.	1.1	44
36	Least-squares stabilized augmented Lagrangian multiplier method for elastic contact. Finite Elements in Analysis and Design, 2016, 116, 32-37.	1.7	16

#	ARTICLE	IF	CITATIONS
37	A cut finite element method for coupled bulk-surface problems on time-dependent domains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 307, 96-116.	3.4	50
38	A Nitsche-type method for Helmholtz equation with an embedded acoustically permeable interface. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 304, 479-500.	3.4	6
39	The nonconforming linear strain tetrahedron for a large deformation elasticity problem. <i>Computational Mechanics</i> , 2016, 58, 929-935.	2.2	1
40	Cut finite element modeling of linear membranes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 310, 98-111.	3.4	16
41	A stabilized finite element method for the Darcy problem on surfaces. <i>IMA Journal of Numerical Analysis</i> , 2016, , drw041.	1.5	2
42	Full gradient stabilized cut finite element methods for surface partial differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 310, 278-296.	3.4	24
43	Cut finite element methods for coupled bulk-surface problems. <i>Numerische Mathematik</i> , 2016, 133, 203-231.	0.9	39
44	Minimal surface computation using a finite element method on an embedded surface. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 104, 502-512.	1.5	8
45	A discontinuous Galerkin method for cohesive zone modelling. <i>Finite Elements in Analysis and Design</i> , 2015, 102-103, 1-6.	1.7	10
46	A posteriori error estimates for continuous/discontinuous Galerkin approximations of the Kirchhoff-Love buckling problem. <i>Computational Mechanics</i> , 2015, 56, 815-827.	2.2	4
47	CutFEM: Discretizing geometry and partial differential equations. <i>International Journal for Numerical Methods in Engineering</i> , 2015, 104, 472-501.	1.5	479
48	Characteristic cut finite element methods for convection-diffusion problems on time dependent surfaces. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 293, 431-461.	3.4	34
49	Tangential differential calculus and the finite element modeling of a large deformation elastic membrane problem. <i>Computational Mechanics</i> , 2015, 56, 87-95.	2.2	25
50	Stabilized Finite Element Approximation of the Mean Curvature Vector on Closed Surfaces. <i>SIAM Journal on Numerical Analysis</i> , 2015, 53, 1806-1832.	1.1	11
51	A stabilized cut finite element method for partial differential equations on surfaces: The Laplace-Beltrami operator. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 285, 188-207.	3.4	62
52	Finite element modeling of a linear membrane shell problem using tangential differential calculus. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 270, 1-14.	3.4	24
53	Locking free quadrilateral continuous/discontinuous finite element methods for the Reissner-Mindlin plate. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2014, 269, 381-393.	3.4	8
54	Variational formulation of curved beams in global coordinates. <i>Computational Mechanics</i> , 2014, 53, 611-623.	2.2	16

#	ARTICLE	IF	CITATIONS
55	A cut finite element method for a Stokes interface problem. <i>Applied Numerical Mathematics</i> , 2014, 85, 90-114.	1.2	144
56	Nonconforming rotated Q_1 tetrahedral element with explicit time stepping for elastodynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 91, 1105-1114.	1.5	4
57	Fictitious domain finite element methods using cut elements: II. A stabilized Nitsche method. <i>Applied Numerical Mathematics</i> , 2012, 62, 328-341.	1.2	301
58	Energy norm a posteriori error estimates for discontinuous Galerkin approximations of the linear elasticity problem. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 3026-3030.	3.4	10
59	A posteriori error estimates for continuous/discontinuous Galerkin approximations of the Kirchhoff-Love plate. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 3289-3295.	3.4	25
60	A finite element method with discontinuous rotations for the Mindlin-Reissner plate model. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 638-648.	3.4	21
61	A nonconforming rotated Q_1 approximation on tetrahedra. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2011, 200, 1311-1316.	3.4	9
62	Fictitious domain finite element methods using cut elements: I. A stabilized Lagrange multiplier method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 2680-2686.	3.4	185
63	A linear nonconforming finite element method for Maxwell's equations in two dimensions. Part I: Frequency domain. <i>Journal of Computational Physics</i> , 2010, 229, 6534-6547.	1.9	5
64	A Nitsche extended finite element method for incompressible elasticity with discontinuous modulus of elasticity. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009, 198, 3352-3360.	3.4	115
65	A simple pressure stabilization method for the Stokes equation. <i>Communications in Numerical Methods in Engineering</i> , 2008, 24, 1421-1430.	1.3	36
66	Adaptive finite element methods for hydrodynamic lubrication with cavitation. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 72, 1584-1604.	1.5	6
67	A unified stabilized method for Stokes and Darcy's equations. <i>Journal of Computational and Applied Mathematics</i> , 2007, 198, 35-51.	1.1	143
68	Continuous Interior Penalty Finite Element Method for Oseen's Equations. <i>SIAM Journal on Numerical Analysis</i> , 2006, 44, 1248-1274.	1.1	131
69	A stabilized non-conforming finite element method for incompressible flow. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 2881-2899.	3.4	30
70	Edge stabilization for the generalized Stokes problem: A continuous interior penalty method. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 2393-2410.	3.4	82
71	Stabilized Lagrange multiplier methods for bilateral elastic contact with friction. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2006, 195, 4323-4333.	3.4	47
72	Piecewise divergence-free discontinuous Galerkin methods for Stokes flow. <i>Communications in Numerical Methods in Engineering</i> , 2006, 24, 355-366.	1.3	15

#	ARTICLE	IF	CITATIONS
73	Stabilized Crouzeix-Raviart element for the Darcy-Stokes problem. Numerical Methods for Partial Differential Equations, 2005, 21, 986-997.	2.0	77
74	A Lagrange multiplier method for the finite element solution of elliptic interface problems using non-matching meshes. Numerische Mathematik, 2005, 100, 91-115.	0.9	83
75	Nitsche's method for interface problems in computational mechanics. GAMM Mitteilungen, 2005, 28, 183-206.	2.7	161
76	Adaptive strategies and error control for computing material forces in fracture mechanics. International Journal for Numerical Methods in Engineering, 2004, 60, 1287-1299.	1.5	34
77	Nitsche's method combined with space-time finite elements for ALE fluid-structure interaction problems. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4195-4206.	3.4	48
78	Edge stabilization for Galerkin approximations of convection-diffusion-reaction problems. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 1437-1453.	3.4	247
79	A finite element method for the simulation of strong and weak discontinuities in solid mechanics. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 3523-3540.	3.4	646
80	Time finite elements and error computation for (visco)plasticity with hardening or softening. International Journal for Numerical Methods in Engineering, 2003, 56, 2213-2232.	1.5	20
81	Energy norm a posteriori error estimation for discontinuous Galerkin methods. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 723-733.	3.4	101
82	A finite element method for domain decomposition with non-matching grids. ESAIM: Mathematical Modelling and Numerical Analysis, 2003, 37, 209-225.	0.8	166
83	Discontinuous Galerkin and the Crouzeix-Raviart element: Application to elasticity. ESAIM: Mathematical Modelling and Numerical Analysis, 2003, 37, 63-72.	0.8	106
84	A finite element method on composite grids based on Nitsche's method. ESAIM: Mathematical Modelling and Numerical Analysis, 2003, 37, 495-514.	0.8	102
85	Strategies for computing goal-oriented a posteriori error measures in non-linear elasticity. International Journal for Numerical Methods in Engineering, 2002, 55, 879-894.	1.5	63
86	Discontinuous Galerkin methods for incompressible and nearly incompressible elasticity by Nitsche's method. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 1895-1908.	3.4	252
87	An unfitted finite element method, based on Nitsche's method, for elliptic interface problems. Computer Methods in Applied Mechanics and Engineering, 2002, 191, 5537-5552.	3.4	677
88	A note on energy conservation for Hamiltonian systems using continuous time finite elements. Communications in Numerical Methods in Engineering, 2001, 17, 863-869.	1.3	15
89	A Crank-Nicolson Type Space-Time Finite Element Method for Computing on Moving Meshes. Journal of Computational Physics, 2000, 159, 274-289.	1.9	15
90	A free-Lagrange finite element method using space-time elements. Computer Methods in Applied Mechanics and Engineering, 2000, 188, 347-361.	3.4	11

#	ARTICLE	IF	CITATIONS
91	Moving finite element methods by use of space-time elements: I. Scalar problems. Numerical Methods for Partial Differential Equations, 1998, 14, 251-262.	2.0	3
92	A new approach to quadrature for finite elements incorporating hourglass control as a special case. Computer Methods in Applied Mechanics and Engineering, 1998, 158, 301-309.	3.4	24
93	On advancing front mesh generation in three dimensions. International Journal for Numerical Methods in Engineering, 1995, 38, 3551-3569.	1.5	71
94	Introduction to Adaptive Methods for Differential Equations. Acta Numerica, 1995, 4, 105-158.	6.3	411
95	Aspects of conservation in finite element flow computations. Computer Methods in Applied Mechanics and Engineering, 1994, 117, 423-437.	3.4	20
96	Explicit Streamline Diffusion Finite Element Methods for the Compressible Euler Equations in Conservation Variables. Journal of Computational Physics, 1993, 109, 274-288.	1.9	32
97	Adaptive finite element methods in computational mechanics. Computer Methods in Applied Mechanics and Engineering, 1992, 101, 143-181.	3.4	287
98	The characteristic streamline diffusion method for the time-dependent incompressible Navier-Stokes equations. Computer Methods in Applied Mechanics and Engineering, 1992, 99, 171-186.	3.4	71
99	The characteristic streamline diffusion method for convection-diffusion problems. Computer Methods in Applied Mechanics and Engineering, 1992, 96, 239-253.	3.4	40
100	Adaptive Finite Element Methods for Small Strain Elasto-Plasticity. , 1992, , 273-288.		14
101	Adaptive streamline diffusion methods for compressible flow using conservation variables. Computer Methods in Applied Mechanics and Engineering, 1991, 87, 267-280.	3.4	41
102	A velocity-pressure streamline diffusion finite element method for the incompressible Navier-Stokes equations. Computer Methods in Applied Mechanics and Engineering, 1990, 84, 175-192.	3.4	172
103	On the convergence of shock-capturing streamline diffusion finite element methods for hyperbolic conservation laws. Mathematics of Computation, 1990, 54, 107-129.	1.1	143
104	Augmented Lagrangian approach to deriving discontinuous Galerkin methods for nonlinear elasticity problems. International Journal for Numerical Methods in Engineering, 0, , .	1.5	0