Peter M Pinsky

List of Publications by Year
in descending order

64	2,504	218381	223531
papers	citations	26 h-index	46 g-index

67	67	67	1517
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Galerkin least-squares finite element method for the two-dimensional Helmholtz equation. International Journal for Numerical Methods in Engineering, 1995, 38, 371-397.	1.5	209
2	Computational modeling of mechanical anisotropy in the cornea and sclera. Journal of Cataract and Refractive Surgery, 2005, 31, 136-145.	0.7	186
3	A microstructurally-based finite element model of the incised human cornea. Journal of Biomechanics, 1991, 24, 907-922.	0.9	144
4	Depth-Dependent Transverse Shear Properties of the Human Corneal Stroma. , 2012, 53, 873.		124
5	Three-Dimensional Distribution of Transverse Collagen Fibers in the Anterior Human Corneal Stroma. , 2013, 54, 7293.		124
6	Complex wavenumber Fourier analysis of the p-version finite element method. Computational Mechanics, 1994, 13, 255-275.	2.2	122
7	Numerical integration of rate constitutive equations in finite deformation analysis. Computer Methods in Applied Mechanics and Engineering, 1983, 40, 137-158.	3.4	115
8	Operator split methods for the numerical solution of the elastoplastic dynamic problem. Computer Methods in Applied Mechanics and Engineering, 1983, 39, 137-157.	3.4	109
9	An assumed covariant strain based 9-node shell element. International Journal for Numerical Methods in Engineering, 1987, 24, 2389-2411.	1.5	92
10	The role of 3-D collagen organization in stromal elasticity: a model based on X-ray diffraction data and second harmonic-generated images. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1101-1113.	1.4	72
11	A multiscale finite element method for the Helmholtz equation. Computer Methods in Applied Mechanics and Engineering, 1998, 154, 281-297.	3.4	68
12	A residual-based finite element method for the Helmholtz equation. International Journal for Numerical Methods in Engineering, 2000, 49, 399-419.	1.5	61
13	Finite element dispersion analysis for the three-dimensional second-order scalar wave equation. International Journal for Numerical Methods in Engineering, 1992, 35, 1183-1218.	1.5	55
14	Finite Element Modeling of Coupled Diffusion with Partitioning in Transdermal Drug Delivery. Annals of Biomedical Engineering, 2005, 33, 1422-1438.	1.3	53
15	An application of shape optimization in the solution of inverse acoustic scattering problems. Inverse Problems, 2004, 20, 199-228.	1.0	48
16	Multiscale Modeling Framework of Transdermal Drug Delivery. Annals of Biomedical Engineering, 2009, 37, 1217-1229.	1.3	42
17	Finite element modeling of acousto-mechanical coupling in the cat middle ear. Journal of the Acoustical Society of America, 2008, 124, 348-362.	0.5	41
18	Unconditionally stable element-by-element algorithms for dynamic problems. Computer Methods in Applied Mechanics and Engineering, 1983, 36, 223-239.	3.4	39

#	Article	IF	Citations
19	Mechanisms of self-organization for the collagen fibril lattice in the human cornea. Journal of the Royal Society Interface, 2013, 10, 20130512.	1.5	39
20	Numerical Modeling of Radial, Astigmatic, and Hexagonal Keratotomy. Journal of Refractive Surgery, 1992, 8, 164-172.	1.1	37
21	A space-time finite element method for structural acoustics in infinite domains part 1: Formulation, stability and convergence. Computer Methods in Applied Mechanics and Engineering, 1996, 132, 195-227.	3.4	36
22	On the implementation of the Dirichlet-to-Neumann radiation condition for iterative solution of the Helmholtz equation. Applied Numerical Mathematics, 1998, 27, 443-464.	1.2	36
23	Local highâ€order radiation boundary conditions for the twoâ€dimensional timeâ€dependent structural acoustics problem. Journal of the Acoustical Society of America, 1992, 91, 1320-1335.	0.5	34
24	Iterative solution of multiple radiation and scattering problems in structural acoustics using a block quasi-minimal residual algorithm. Computer Methods in Applied Mechanics and Engineering, 1997, 146, 173-196.	3.4	34
25	A structural model for the in vivo human cornea including collagen-swelling interaction. Journal of the Royal Society Interface, 2015, 12, 20150241.	1.5	33
26	A mixed finite element formulation for Reissner-Mindlin plates based on the use of bubble functions. International Journal for Numerical Methods in Engineering, 1989, 28, 1677-1702.	1.5	32
27	Finite element solution of the transient exterior structural acoustics problem based on the use of radially asymptotic boundary operators. Computer Methods in Applied Mechanics and Engineering, 1991, 85, 311-348.	3.4	32
28	Using the method of homogenization to calculate the effective diffusivity of the stratum corneum with permeable corneocytes. Journal of Biomechanics, 2008, 41, 788-796.	0.9	31
29	Three-Dimensional Modeling of Metabolic Species Transport in the Cornea With a Hydrogel Intrastromal Inlay. , 2014, 55, 3093.		26
30	Design of Galerkin Generalized Least Squares methods for Timoshenko beams. Computer Methods in Applied Mechanics and Engineering, 1996, 132, 1-16.	3.4	25
31	Using the method of homogenization to calculate the effective diffusivity of the stratum corneum. Journal of Membrane Science, 2007, 293, 174-182.	4.1	25
32	The Balance of Fluid and Osmotic Pressures across Active Biological Membranes with Application to the Corneal Endothelium. PLoS ONE, 2015, 10, e0145422.	1.1	23
33	A finite element formulation for elastoplasticity based on a three-field variational equation. Computer Methods in Applied Mechanics and Engineering, 1987, 61, 41-60.	3.4	22
34	A space-time finite element method for structural acoustics in infinite domains part 2: Exact time-dependent non-reflecting boundary conditions. Computer Methods in Applied Mechanics and Engineering, 1996, 132, 229-258.	3.4	21
35	EFFICIENT COMPUTATION OF MULTI-FREQUENCY FAR-FIELD SOLUTIONS OF THE HELMHOLTZ EQUATION USING PADÃ‰ APPROXIMATION. Journal of Computational Acoustics, 2000, 08, 223-240.	1.0	21
36	A multi-director formulation for elasticâ€”viscoelastic layered shells. International Journal for Numerical Methods in Engineering, 1986, 23, 2213-2244.	1.5	20

#	Article	IF	Citations
37	A NUMERICAL COMPARISON OF FINITE ELEMENT METHODS FOR THE HELMHOLTZ EQUATION. Journal of Computational Acoustics, 2000, 08, 211-221.	1.0	20
38	Adaptive frequency windowing for multifrequency solutions in structural acoustics based on the matrix PadÃ©-via-Lanczos algorithm. International Journal for Numerical Methods in Engineering, 2008, 73, 728-746.	1.5	20
39	Complex wave-number dispersion analysis of Galerkin and Galerkin least-squares methods for fluid-loaded plates. Computer Methods in Applied Mechanics and Engineering, 1994, 113, 67-98.	3.4	19
40	A spaceâ€time finite element method for the exterior acoustics problem. Journal of the Acoustical Society of America, 1996, 99, 3297-3311.	0.5	19
41	Operator split methods in the numerical solution of the finite deformation elastoplastic dynamic problem. Computers and Structures, 1983, 17, 345-359.	2.4	16
42	A Krylov subspace projection method for simultaneous solution of Helmholtz problems at multiple frequencies. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 4609-4640.	3.4	15
43	Matrixâ€PadÃ© via Lanczos solutions for vibrations of fluidâ€“structure interaction. International Journal for Numerical Methods in Engineering, 2010, 84, 1183-1204.	1.5	15
44	A multi-director formulation for nonlinear elastic-viscoelastic layered shells. Computers and Structures, 1986, 24, 901-913.	2.4	13
45	Convergence of curved shell elements based on assumed covariant strain interpolations. International Journal for Numerical Methods in Engineering, 1988, 26, 329-347.	1.5	13
46	Shape sensitivity calculations for exterior acoustics problems. Engineering Computations, 2001, 18, 376-393.	0.7	12
47	Modeling Collagen-Proteoglycan Structural Interactions in the Human Cornea. , 2013, , 11-24.		12
48	Two mixed variational principles for exterior fluid-structure interaction problems. Computers and Structures, 1989, 33, 621-635.	2.4	11
49	Galerkin Generalized Least Squares finite element methods for time-harmonic structural acoustics. Computer Methods in Applied Mechanics and Engineering, 1998, 154, 299-318.	3.4	10
50	Parallel preconditioning based on h-hierarchical finite elements with application to acoustics. Computer Methods in Applied Mechanics and Engineering, 1998, 155, 97-117.	3.4	10
51	Application of PadÃ© via Lanczos approximations for efficient multifrequency solution of Helmholtz problems. Journal of the Acoustical Society of America, 2003, 113, 313-319.	0.5	9
52	A mixed finite element for laminated composite plates based on the use of bubble functions. Engineering Computations, 1989, 6, 316-330.	0.7	7
53	On the use of lagrange multiplier compatible modes for controlling accuracy and stability of mixed shell finite elements. Computer Methods in Applied Mechanics and Engineering, 1991, 85, 151-182.	3.4	7
54	On Mechanics of Connective Tissue: Assessing the Electrostatic Contribution to Corneal Stroma Elasticity. Materials Research Society Symposia Proceedings, 2009, 1239, 1.	0.1	7

#	Article	IF	Citations
55	A numerical model for metabolism, metabolite transport and edema in the human cornea. Computer Methods in Applied Mechanics and Engineering, 2017, 314, 323-344.	3.4	7
56	Elastoplastic Shell Element Based on Assumed Covariant Strain Interpolations. Journal of Engineering Mechanics - ASCE, 1988, 114, 1045-1062.	1.6	5
57	A Constitutive Model for Swelling Pressure and Volumetric Behavior of Highly-Hydrated Connective Tissue. Journal of Elasticity, 2017, 129, 145-170.	0.9	5
58	Finite element formulation for a baffled, fluid-loaded, finite cylindrical shell. International Journal for Numerical Methods in Engineering, 1994, 37, 2971-2985.	1.5	4
59	Analytic perturbation solution to the capacitance system of a hyberboloidal tip and a rough surface. Applied Physics Letters, 2008, 92, .	1.5	3
60	A nonlinear macroscopic multi-phasic model for describing interactions between solid, fluid and ionic species in biological tissue materials. Philosophical Magazine, 2011, 91, 300-314.	0.7	3
61	Elastostatic Analysis of the Membrane Tenting Deformation of Inner-Ear Stereocilia. , 2011, , .		2
62	Multifrequency Analysis using Matrix PadÃ©â€“viaâ€“Lanczos. , 0, , 89-114.		2
63	On the Use of Bubble Modes in Mixed Plate and Shell Finite Elements for Laminated Composites. Springer Series in Computational Mechanics, 1990, , 282-301.	0.3	0
64	Title is missing!. , 2018, , .		0