

# Hans Irschik

## List of Publications by Year in descending order

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64  
papers

1,266  
citations

394421

19  
h-index

377865

34  
g-index

72  
all docs

72  
docs citations

72  
times ranked

689  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-quality sheet metal production using a model-based adaptive approach. Procedia Computer Science, 2021, 180, 249-258.	2.0	6
2	Extension of Boley's continuum mechanics-based successive approximation method to two-layer rectangular beams. Continuum Mechanics and Thermodynamics, 2021, 33, 1709-1731.	2.2	1
3	Application of a Novel Picard-Type Time-Integration Technique to the Linear and Non-Linear Dynamics of Mechanical Structures: An Exemplary Study. Applied Sciences (Switzerland), 2021, 11, 3742.	2.5	2
4	Improvement of Discrete-Mechanics-Type Time Integration Schemes by Utilizing Balance Relations in Integral form Together with Picard-Type Iterations. International Journal of Structural Stability and Dynamics, 2020, 20, 2050046.	2.4	1
5	Generalized reciprocity theorems for infinitesimal deformations superimposed upon finite deformations of rods: the plane problem. Acta Mechanica, 2019, 230, 3909-3921.	2.1	2
6	Control of stress and damage in structures by piezoelectric actuation: 1D theory and monofrequent experimental validation. Structural Control and Health Monitoring, 2019, 26, e2338.	4.0	5
7	Changes in the board of editors. Acta Mechanica, 2018, 229, 1-1.	2.1	19
8	Special Issue dedicated to the memory of Franz Ziegler. Acta Mechanica, 2018, 229, 421-421.	2.1	0
9	Analogies for simply supported nonlocal Kirchhoff plates of polygonal planform. Acta Mechanica, 2018, 229, 867-879.	2.1	8
10	Cristian Marchioli to succeed Alfredo Soldati as an Editor of Acta Mechanica. Acta Mechanica, 2017, 228, 1211-1211.	2.1	0
11	A generalization of Noether's theorem for a non-material volume. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2016, 96, 696-706.	1.6	16
12	Nonlinear statics of extensible elastic belt on two pulleys. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 11-14.	0.2	5
13	Displacement tracking of pre-deformed smart structures. Smart Structures and Systems, 2016, 18, 139-154.	1.9	7
14	Post-Buckling of Piezoelectric Thin Plates. International Journal of Structural Stability and Dynamics, 2015, 15, 1540020.	2.4	7
15	Managing Contradictory Stakeholder Demands of a Publicly Funded Research Center. International Journal of Innovation and Technology Management, 2015, 12, 1550002.	1.4	1
16	Enhancement of elementary beam theories in order to obtain exact solutions for elastic rectangular beams. Mechanics Research Communications, 2015, 68, 46-51.	1.8	11
17	Lagrange's equations for open systems, derived via the method of fictitious particles, and written in the Lagrange description of continuum mechanics. Acta Mechanica, 2015, 226, 63-79.	2.1	30
18	A European Association for the Control of Structures joint perspective. Recent studies in civil structural control across Europe. Structural Control and Health Monitoring, 2014, 21, 1414-1436.	4.0	82

#	ARTICLE	IF	CITATIONS
19	A Non-linear Theory for Piezoelectric Beams. , 2014, , 189-197.		0
20	Design of Piezoelectric Sensors for Structural and Health Monitoring Based on the Principle of Virtual Work. Advanced Materials Research, 2013, 745, 73-87.	0.3	1
21	Transformation of Arbitrary Elastic Mode Shapes Into Pseudo-Free-Surface and Rigid Body Modes for Multibody Dynamic Systems. Journal of Computational and Nonlinear Dynamics, 2012, 7, .	1.2	12
22	A continuum-mechanics interpretation of Reissner's non-linear shear-deformable beam theory. Mathematical and Computer Modelling of Dynamical Systems, 2011, 17, 19-29.	2.2	37
23	A new locking-free formulation for planar, shear deformable, linear and quadratic beam finite elements based on the absolute nodal coordinate formulation. Multibody System Dynamics, 2011, 26, 245-263.	2.7	94
24	Efficient Topology Optimization of Large Dynamic Finite Element Systems Using Fatigue. AIAA Journal, 2010, 48, 1339-1347.	2.6	26
25	On the Use of Piezoelectric Sensors in Structural Mechanics: Some Novel Strategies. Sensors, 2010, 10, 5626-5641.	3.8	19
26	Dynamic response of an elastic bridge loaded by a moving elastic beam with a finite length. Interaction and Multiscale Mechanics, 2010, 3, 343-363.	0.4	6
27	Efficient Mode Based Computational Approach for Jointed Structures: Joint Interface Modes. AIAA Journal, 2009, 47, 252-263.	2.6	33
28	A Large Deformation Planar Finite Element for Pipes Conveying Fluid Based on the Absolute Nodal Coordinate Formulation. Journal of Computational and Nonlinear Dynamics, 2009, 4, .	1.2	17
29	A continuum mechanics based derivation of Reissner's large-displacement finite-strain beam theory: the case of plane deformations of originally straight Bernoulli-Euler beams. Acta Mechanica, 2009, 206, 1-21.	2.1	86
30	Dynamic displacement tracking of a one-storey frame structure using patch actuator networks: Analytical plate solution and FE validation. Smart Structures and Systems, 2009, 5, 613-632.	1.9	9
31	An effective strategy for the multibody simulation of jointed FE models in the framework of the floating frame of reference formulation.. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10157-10160.	0.2	0
32	An alternative approach for the analysis of nonlinear vibrations of pipes conveying fluid. Journal of Sound and Vibration, 2008, 310, 493-511.	3.9	48
33	On the correct representation of bending and axial deformation in the absolute nodal coordinate formulation with an elastic line approach. Journal of Sound and Vibration, 2008, 318, 461-487.	3.9	155
34	Design of Actuator Networks for Dynamic Displacement Tracking of Beams. Mechanics of Advanced Materials and Structures, 2008, 15, 235-249.	2.6	12
35	Mechatronics - The Innovation Request. Advances in Science and Technology, 2008, 56, 1-10.	0.2	4
36	On rational treatments of the general laws of balance and jump, with emphasis on configurational formulations. Acta Mechanica, 2007, 194, 11-32.	2.1	22

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37	Sensor and actuator design for displacement control of continuous systems. Smart Structures and Systems, 2007, 3, 147-172.	1.9	26
38	An extension of Neumann's method for shape control of force-induced elastic vibrations by eigenstrains. International Journal of Solids and Structures, 2004, 41, 871-884.	2.7	29
39	Boley's method for two-dimensional thermoelastic problems applied to piezoelectric structures. International Journal of Solids and Structures, 2004, 41, 2121-2131.	2.7	14
40	Dynamic response of an elastic bridge due to a moving elastic beam. Computers and Structures, 2004, 82, 931-943.	4.4	22
41	Dynamic stress compensation by smart actuation. , 2004, , .		5
42	The Rayleigh-Ritz Technique and the Lagrange Equations in Continuum Mechanics: Formulations for Material and Non-Material Volumes. , 2004, , 21-35.		3
43	STATIC SHAPE CONTROL OF FORCE-INDUCED INFINITESIMAL DEFORMATIONS SUPERIMPOSED ON LARGE DEFORMATIONS OF THERMOELASTIC BODIES. Journal of Thermal Stresses, 2003, 26, 1193-1204.	2.0	0
44	Concentrations of Pressure Between an Elastically Supported Beam and a Moving Timoshenko-Beam. Journal of Engineering Mechanics - ASCE, 2003, 129, 1076-1082.	2.9	12
45	Shape Control of Flexural Vibrations of Circular Plates by Shaped Piezoelectric Actuation. Journal of Vibration and Acoustics, Transactions of the ASME, 2003, 125, 88-94.	1.6	19
46	Dynamic shape control of beam-type structures by piezoelectric actuation and sensing. International Journal of Applied Electromagnetics and Mechanics, 2003, 17, 251-258.	0.6	32
47	Eigenstrain Without Stress and Static Shape Control of Structures. AIAA Journal, 2001, 39, 1985-1990.	2.6	40
48	Eigenstrain without stress and static shape control of structures. AIAA Journal, 2001, 39, 1985-1990.	2.6	3
49	On the influence of the electric field on free transverse vibrations of smart beams. Smart Materials and Structures, 1999, 8, 401-410.	3.5	61
50	Control of earthquake excited nonlinear structures using Liapunov's theory. Computers and Structures, 1998, 67, 83-90.	4.4	11
51	H $\infty$ -control of random structural vibrations with piezoelectric actuators. Computers and Structures, 1998, 67, 137-145.	4.4	5
52	Shaping of Piezoelectric Sensors/Actuators for Vibrations of Slender Beams: Coupled Theory and Inappropriate Shape Functions. Journal of Intelligent Material Systems and Structures, 1998, 9, 546-554.	2.5	57
53	Franz Ziegler ? On the occasion of his 60th birthday. Acta Mechanica, 1997, 125, 1-2.	2.1	2
54	Non-linear waves in complex structures modelled by elastic-viscoplastic stochastic media. International Journal of Non-Linear Mechanics, 1996, 31, 771-777.	2.6	0

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55	Maysel's formula generalized for piezoelectric vibrations - Application to thin shells of revolution. AIAA Journal, 1996, 34, 2402-2405.	2.6	24
56	Dynamic Processes in Structural Thermo-Viscoplasticity. Applied Mechanics Reviews, 1995, 48, 301-316.	10.1	39
57	Spherical Elastic-Plastic Waves. JVC/Journal of Vibration and Control, 1995, 1, 345-360.	2.6	9
58	Analogies between Bending of Plates and Torsion Problem. Journal of Engineering Mechanics - ASCE, 1991, 117, 2503-2508.	2.9	14
59	Influence of large amplitudes on free flexural vibrations of polygonal shear-deformable plates – a unifying dimensionless formulation. International Journal of Solids and Structures, 1990, 26, 675-681.	2.7	7
60	Analysis of Viscoplastic Sandwich Beams Using Influence Functions. Mechanics Based Design of Structures and Machines, 1988, 16, 35-52.	0.6	7
61	Nonstationary Response of Polygonally Shaped Membranes to Random Excitation. Studies in Applied Mechanics, 1986, 14, 555-565.	0.4	2
62	A boundary-integral equation method for bending of orthotropic plates. International Journal of Solids and Structures, 1984, 20, 245-255.	2.7	14
63	Dynamic Displacement Tracking for Frame Structures with a Piezoelectric Patch Network Based on Plate Theory. Advances in Science and Technology, 0, , .	0.2	2
64	Mechanics and Model Based Control. Advances in Science and Technology, 0, , .	0.2	0