

Alain Nussbaumer

List of Publications by Year in descending order

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75
papers

1,628
citations

279798

23
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330143

37
g-index

78
all docs

78
docs citations

78
times ranked

829
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of cracked steel members reinforced by pre-stress composite patch. Fatigue and Fracture of Engineering Materials and Structures, 2003, 26, 59-66.	3.4	117
2	Mode I fatigue crack arrest in tensile steel members using prestressed CFRP plates. Composite Structures, 2017, 178, 119-134.	5.8	109
3	Determination of minimum CFRP pre-stress levels for fatigue crack prevention in retrofitted metallic beams. Engineering Structures, 2015, 84, 29-41.	5.3	80
4	Fatigue design criteria for strengthening metallic beams with bonded CFRP plates. Engineering Structures, 2015, 101, 542-557.	5.3	65
5	Delamination effects on cracked steel members reinforced by prestressed composite patch. Theoretical and Applied Fracture Mechanics, 2003, 39, 61-71.	4.7	64
6	Experimental study on the fatigue behaviour of welded tubular K-joints for bridges. Engineering Structures, 2006, 28, 745-755.	5.3	57
7	Estimation of fatigue S-N curves of welded joints using advanced probabilistic approach. International Journal of Fatigue, 2017, 97, 98-113.	5.7	52
8	Crack growth induced delamination on steel members reinforced by prestressed composite patch. Fatigue and Fracture of Engineering Materials and Structures, 2003, 26, 429-438.	3.4	51
9	Assessment of existing steel structures. A guideline for estimation of the remaining fatigue life. Structure and Infrastructure Engineering, 2007, 3, 245-255.	3.7	45
10	Experimental testing and simulation of bolted beam-column connections having thick extended endplates and multiple bolts per row. Engineering Structures, 2014, 59, 434-447.	5.3	43
11	Effect of tensile residual stresses on fatigue crack growth and S-N curves in tubular joints loaded in compression. International Journal of Fatigue, 2012, 36, 171-180.	5.7	42
12	Flat prestressed unbonded retrofit system for strengthening of existing metallic I-Girders. Composites Part B: Engineering, 2018, 155, 156-172.	12.0	38
13	Finite Element Analysis for Fatigue Damage Reduction in Metallic Riveted Bridges Using Pre-Stressed CFRP Plates. Polymers, 2014, 6, 1096-1118.	4.5	36
14	The mechanical behaviour of SentryGlas [®] ionomer and TSSA silicon bulk materials at different temperatures and strain rates under uniaxial tensile stress state. Glass Structures and Engineering, 2016, 1, 395-415.	1.7	36
15	Fatigue design of cast steel nodes in tubular bridge structures. International Journal of Fatigue, 2008, 30, 528-537.	5.7	33
16	Development of prestressed unbonded and bonded CFRP strengthening solutions for tensile metallic members. Engineering Structures, 2019, 181, 550-561.	5.3	31
17	Laminated connections for structural glass applications under shear loading at different temperatures and strain rates. Construction and Building Materials, 2016, 128, 214-237.	7.2	30
18	Probabilistic S-N curves for constant and variable amplitude. International Journal of Fatigue, 2017, 101, 312-327.	5.7	30

#	ARTICLE	IF	CITATIONS
19	Influence of the optical measurement technique and evaluation approach on the determination of local weld geometry parameters for different weld types. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2020, 64, 301-316.	2.5	30
20	Prestressed Unbonded Reinforcement System with Multiple CFRP Plates for Fatigue Strengthening of Steel Members. <i>Polymers</i> , 2018, 10, 264.	4.5	27
21	Comparing Structural Identification Methodologies for Fatigue Life Prediction of a Highway Bridge. <i>Frontiers in Built Environment</i> , 2018, 3, .	2.3	26
22	A probabilistic assessment of the effect of post-weld treatment on the fatigue performance of tubular truss bridges. <i>Engineering Structures</i> , 2008, 30, 247-257.	5.3	23
23	Fatigue analysis of liquid-storage tank shell-to-base connections under multi-axial loading. <i>Engineering Structures</i> , 2012, 40, 75-82.	5.3	23
24	Laminated connections for structural glass components: a full-scale experimental study. <i>Glass Structures and Engineering</i> , 2017, 2, 79-101.	1.7	23
25	Mixed mode I/II fatigue crack arrest in steel members using prestressed CFRP reinforcement. <i>International Journal of Fatigue</i> , 2019, 127, 345-361.	5.7	23
26	Measurement, Data Interpretation, and Uncertainty Propagation for Fatigue Assessments of Structures. <i>Journal of Bridge Engineering</i> , 2016, 21, .	2.9	22
27	A probabilistic model for determining the effect of post-weld treatment on the fatigue performance of tubular bridge joints. <i>International Journal of Fatigue</i> , 2007, 29, 516-532.	5.7	21
28	Laminated connections under tensile load at different temperatures and strain rates. <i>International Journal of Adhesion and Adhesives</i> , 2017, 79, 23-49.	2.9	21
29	Neutron diffraction investigations on residual stresses contributing to the fatigue crack growth in ferritic steel tubular bridges. <i>International Journal of Pressure Vessels and Piping</i> , 2012, 95, 31-38.	2.6	19
30	Experimental investigation of multi-span post-tensioned glass beams. <i>Glass Structures and Engineering</i> , 2017, 2, 3-15.	1.7	19
31	A critical examination of the size effect correction for welded steel tubular joints. <i>International Journal of Fatigue</i> , 2009, 31, 1422-1433.	5.7	18
32	Experimental determination of the rotational capacity of wall-to-base connections in storage tanks. <i>Journal of Constructional Steel Research</i> , 2011, 67, 1174-1184.	3.9	17
33	On the low-cycle fatigue capacity of unanchored steel liquid storage tank shell-to-base connections. <i>Bulletin of Earthquake Engineering</i> , 2012, 10, 1943-1958.	4.1	17
34	Reliability based fatigue assessment of existing motorway bridge. <i>Structural Safety</i> , 2015, 57, 35-42.	5.3	17
35	Geometrical and Material Characterization of Quenched and Self-Tempered Steel Reinforcement Bars. <i>Journal of Materials in Civil Engineering</i> , 2016, 28, .	2.9	17
36	Microstructural influence on the scatter in the fatigue life of steel reinforcement bars. <i>International Journal of Fatigue</i> , 2015, 75, 205-212.	5.7	15

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37	Behavior of Long Fatigue Cracks in Cellular Box Beam. Journal of Structural Engineering, 1999, 125, 1232-1238.	3.4	14
38	Very high cycle fatigue tests of quenched and self-tempered steel reinforcement bars. Materials and Structures/Materiaux Et Constructions, 2016, 49, 1723-1732.	3.1	14
39	Fatigue properties of as-welded and post-weld-treated high-strength steel joints: The influence of constant and variable amplitude loads. International Journal of Fatigue, 2020, 138, 105687.	5.7	14
40	SIZE EFFECT OF WELDED THIN-WALLED TUBULAR JOINTS. International Journal of Structural Stability and Dynamics, 2007, 07, 101-127.	2.4	13
41	Fatigue behaviour of CHS tubular bracings in steel bridges. International Journal of Fatigue, 2017, 96, 127-141.	5.7	13
42	Modelling fatigue crack propagation of a cracked metallic member reinforced by composite patches. Engineering Fracture Mechanics, 2009, 76, 1277-1287.	4.3	12
43	Structural response of fire-exposed laminated glass beams under sustained loads; exploratory experiments and FE-Simulations. Fire Safety Journal, 2021, 123, 103353.	3.1	11
44	FE analysis and experimental validation of mechanical wedge-barrel anchors for CFRP rods. Composite Structures, 2021, 275, 114509.	5.8	11
45	Size effects in the fatigue behavior of welded steel tubular bridge joints. Materialwissenschaft Und Werkstofftechnik, 2008, 39, 740-748.	0.9	10
46	A novel triaxial failure model for adhesive connections in structural glass applications. Engineering Structures, 2018, 166, 195-211.	5.3	10
47	Numerical modelling and experimental investigation on welding residual stresses in large-scale tubular K-joints. Fatigue and Fracture of Engineering Materials and Structures, 2013, 36, 177-185.	3.4	9
48	Fatigue behaviour prediction of steel reinforcement bars using an adapted Navarro and De Los Rios model. International Journal of Fatigue, 2015, 75, 198-204.	5.7	9
49	Multiaxial ultra low cycle fatigue in welded high strength steel structural components. Journal of Constructional Steel Research, 2019, 153, 473-482.	3.9	9
50	Development of Mechanical Strengthening System for Bridge Connections Using Prestressed CFRP Rods. Journal of Structural Engineering, 2021, 147, .	3.4	9
51	Development of a Mechanical Wedge-Barrel Anchor for CFRP Rods: Static and Fatigue Behaviors. Journal of Composites for Construction, 2021, 25, .	3.2	9
52	Damage-Based Assessment of the Fatigue Crack Initiation Site in High-Strength Steel Welded Joints Treated by HFMI. Metals, 2022, 12, 145.	2.3	9
53	Advanced Numerical Modeling of Cracked Tubular K Joints: BEM and FEM Comparison. Journal of Bridge Engineering, 2012, 17, 432-442.	2.9	7
54	A reanalysis of fatigue test data for longitudinal welded gusset joints in as-welded and high frequency mechanical impact (HFMI)-treated state. International Journal of Fatigue, 2021, 149, 106167.	5.7	7

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55	Analytical approach for improving damage equivalence factors. Engineering Structures, 2014, 59, 838-847.	5.3	6
56	New framework for calibration of partial safety factors for fatigue design. Journal of Constructional Steel Research, 2017, 139, 466-472.	3.9	6
57	Probabilistic fatigue analysis of shop and field treated tubular truss bridges. Journal of Constructional Steel Research, 2008, 64, 156-166.	3.9	5
58	Evaluation of residual welding stresses and fatigue crack behavior in tubular K-joints in compression. Stahlbau, 2011, 80, 483-491.	0.1	5
59	Simultaneous Vehicle Crossing Effects on Fatigue Damage Equivalence Factors for North American Roadway Bridges. Journal of Bridge Engineering, 2013, 18, 1309-1318.	2.9	5
60	Effect of radial base-plate welds on ULCF capacity of unanchored tank connections. Journal of Constructional Steel Research, 2014, 103, 131-139.	3.9	5
61	Fatigue Strength Upgrading of Cover Plate Ends by Welded Extensions in Existing Steel Bridge Girders. Journal of Bridge Engineering, 2018, 23, .	2.9	5
62	Flexural behaviour of post-tensioned glass beams: Experimental and analytical study of three beam typologies. Composite Structures, 2021, 255, 112971.	5.8	5
63	Beurteilung bestehender Stahltragwerke: Empfehlungen zur Abschätzung der Restnutzungsdauer. Stahlbau, 2008, 77, 595-607.	0.1	4
64	Multiaxial fatigue study on steel transversal attachments under constant amplitude proportional and non-proportional loadings. MATEC Web of Conferences, 2018, 165, 16007.	0.2	4
65	Post-tensioning of glass beams: Analytical determination of the allowable pre-load. Glass Structures and Engineering, 2021, 6, 233-248.	1.7	4
66	Benefits of Post-Weld Treatment to Improve Tubular Bridge Fatigue Performance. , 2007, , .		3
67	Multiaxial fatigue criteria for prestressed strengthening of steel connections. International Journal of Fatigue, 2021, 153, 106470.	5.7	3
68	On the practical use of weld improvement methods. Structural Control and Health Monitoring, 2001, 3, 95-105.	0.7	1
69	Tubular Trusses for Steel-Concrete Composite Bridges. IABSE Symposium Report, 2007, , .	0.0	1
70	Traffic-Based Condition Assessment and Fatigue-Life Predictions for a Highway Bridge. , 2017, , .		1
71	Computational Investigation of Mode-I Fatigue Crack Growth in CFRP-Strengthened Steel Plates with a Cohesive Zone Model. Lecture Notes in Civil Engineering, 2022, , 2287-2297.	0.4	1
72	Using re-calibrated design S-N curves for fatigue assessment of road bridges. Ce/Papers, 2017, 1, 443-448.	0.3	0

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73	European traffic on road bridges and recalibration of damage equivalence factor for fatigue verification. Ce/Papers, 2021, 4, 1065-1075.	0.3	0
74	The impact of heavy vehicle platoons on bridge traffic loads. , 2021, , .		0
75	Updating bridge axle loads using WIM in Switzerland. , 2021, , .		0