Alain Nussbaumer

List of Publications by Year
in descending order

75 papers	1,628 citations	279798 23 h-index	330143 37 g-index
78 all docs	78 docs citations	78 times ranked	829 citing authors

#	Article	IF	Citations
1	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
2	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
3	Flexural behaviour of post-tensioned glass beams: Experimental and analytical study of three beam typologies. Composite Structures, 2021, 255, 112971.	5.8	5
4	Post-tensioning of glass beams: Analytical determination of the allowable pre-load. Glass Structures and Engineering, 2021, 6, 233-248.	1.7	4
5	Development of Mechanical Strengthening System for Bridge Connections Using Prestressed CFRP Rods. Journal of Structural Engineering, 2021, 147, .	3.4	9
6	Development of a Mechanical Wedgeâ€“Barrel Anchor for CFRP Rods: Static and Fatigue Behaviors. Journal of Composites for Construction, 2021, 25, .	3.2	9
7	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
8	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
9	European traffic on road bridges and recalibration of damage equivalence factor for fatigue verification. Ce/Papers, 2021, 4, 1065-1075.	0.3	0
10	FE analysis and experimental validation of mechanical wedgeâ€“barrel anchors for CFRP rods. Composite Structures, 2021, 275, 114509.	5.8	11
11	Multiaxial fatigue criteria for prestressed strengthening of steel connections. International Journal of Fatigue, 2021, 153, 106470.	5.7	3
12	The impact of heavy vehicle platoons on bridge traffic loads. , 2021, , .		0
13	Updating bridge axle loads using WIM in Switzerland. , 2021, , .		0
14	Influence of the optical measurement technique and evaluation approach on the determination of local weld geometry parameters for different weld types. Welding in the World, Le Soudage Dans Le Monde, 2020, 64, 301-316.	2.5	30
15	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
16	Mixed mode I/II fatigue crack arrest in steel members using prestressed CFRP reinforcement. International Journal of Fatigue, 2019, 127, 345-361.	5.7	23
17	Development of prestressed unbonded and bonded CFRP strengthening solutions for tensile metallic members. Engineering Structures, 2019, 181, 550-561.	5.3	31
18	Multiaxial ultra low cycle fatigue in welded high strength steel structural components. Journal of Constructional Steel Research, 2019, 153, 473-482.	3.9	9

#	Article	IF	Citations
19	Fatigue Strength Upgrading of Cover Plate Ends by Welded Extensions in Existing Steel Bridge Girders. Journal of Bridge Engineering, 2018, 23, .	2.9	5
20	A novel triaxial failure model for adhesive connections in structural glass applications. Engineering Structures, 2018, 166, 195-211.	5.3	10
21	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
22	Prestressed Unbonded Reinforcement System with Multiple CFRP Plates for Fatigue Strengthening of Steel Members. Polymers, 2018, 10, 264.	4.5	27
23	Comparing Structural Identification Methodologies for Fatigue Life Prediction of a Highway Bridge. Frontiers in Built Environment, 2018, 3, .	2.3	26
24	Flat prestressed unbonded retrofit system for strengthening of existing metallic I-Girders. Composites Part B: Engineering, 2018, 155, 156-172.	12.0	38
25	Probabilistic S-N curves for constant and variable amplitude. International Journal of Fatigue, 2017, 101, 312-327.	5.7	30
26	Experimental investigation of multi-span post-tensioned glass beams. Glass Structures and Engineering, 2017, 2, 3-15.	1.7	19
27	Traffic-Based Condition Assessment and Fatigue-Life Predictions for a Highway Bridge. , 2017, , .		1
28	Estimation of fatigue S-N curves of welded joints using advanced probabilistic approach. International Journal of Fatigue, 2017, 97, 98-113.	5.7	52
29	Laminated connections for structural glass components: a full-scale experimental study. Glass Structures and Engineering, 2017, 2, 79-101.	1.7	23
30	New framework for calibration of partial safety factors for fatigue design. Journal of Constructional Steel Research, 2017, 139, 466-472.	3.9	6
31	Laminated connections under tensile load at different temperatures and strain rates. International Journal of Adhesion and Adhesives, 2017, 79, 23-49.	2.9	21
32	Mode I fatigue crack arrest in tensile steel members using prestressed CFRP plates. Composite Structures, 2017, 178, 119-134.	5.8	109
33	Fatigue behaviour of CHS tubular bracings in steel bridges. International Journal of Fatigue, 2017, 96, 127-141.	5.7	13
34	Using reâ€calibrated design Sâ€N curves for fatigue assessment of road bridges. Ce/Papers, 2017, 1, 443-448.	0.3	0
35	Measurement, Data Interpretation, and Uncertainty Propagation for Fatigue Assessments of Structures. Journal of Bridge Engineering, 2016, 21, .	2.9	22
36	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

#	Article	IF	Citations
37	The mechanical behaviour of SentryGlas $$^{circledR }$$ Â® 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
38	Geometrical and Material Characterization of Quenched and Self-Tempered Steel Reinforcement Bars. Journal of Materials in Civil Engineering, 2016, 28, .	2.9	17
39	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
40	Reliability based fatigue assessment of existing motorway bridge. Structural Safety, 2015, 57, 35-42.	5.3	17
41	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
42	Microstructural influence on the scatter in the fatigue life of steel reinforcement bars. International Journal of Fatigue, 2015, 75, 205-212.	5.7	15
43	Fatigue design criteria for strengthening metallic beams with bonded CFRP plates. Engineering Structures, 2015, 101, 542-557.	5.3	65
44	Determination of minimum CFRP pre-stress levels for fatigue crack prevention in retrofitted metallic beams. Engineering Structures, 2015, 84, 29-41.	5.3	80
45	Finite Element Analysis for Fatigue Damage Reduction in Metallic Riveted Bridges Using Pre-Stressed CFRP Plates. Polymers, 2014, 6, 1096-1118.	4.5	36
46	Analytical approach for improving damage equivalence factors. Engineering Structures, 2014, 59, 838-847.	5.3	6
47	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
48	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
49	Numerical modelling and experimental investigation on welding residual stresses in largeâ€scale tubular Kâ€joints. Fatigue and Fracture of Engineering Materials and Structures, 2013, 36, 177-185.	3.4	9
50	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
51	Advanced Numerical Modeling of Cracked Tubular K Joints: BEM and FEM Comparison. Journal of Bridge Engineering, 2012, 17, 432-442.	2.9	7
52	On the low-cycle fatigue capacity of unanchored steel liquid storage tank shell-to-base connections. Bulletin of Earthquake Engineering, 2012, 10, 1943-1958.	4.1	17
53	Neutron diffraction investigations on residual stresses contributing to the fatigue crack growth in ferritic steel tubular bridges. International Journal of Pressure Vessels and Piping, 2012, 95, 31-38.	2.6	19
54	Effect of tensile residual stresses on fatigue crack growth and Sâ€“N curves in tubular joints loaded in compression. International Journal of Fatigue, 2012, 36, 171-180.	5.7	42

#	Article	IF	Citations
55	Fatigue analysis of liquid-storage tank shell-to-base connections under multi-axial loading. Engineering Structures, 2012, 40, 75-82.	5.3	23
56	Evaluation of residual welding stresses and fatigue crack behavior in tubular K-joints in compression. Stahlbau, 2011, 80, 483-491.	0.1	5
57	Experimental determination of the rotational capacity of wall-to-base connections in storage tanks. Journal of Constructional Steel Research, 2011, 67, 1174-1184.	3.9	17
58	Modelling fatigue crack propagation of a cracked metallic member reinforced by composite patches. Engineering Fracture Mechanics, 2009, 76, 1277-1287.	4.3	12
59	A critical examination of the size effect correction for welded steel tubular joints. International Journal of Fatigue, 2009, 31, 1422-1433.	5.7	18
60	Beurteilung bestehender Stahltragwerke: Empfehlungen zur AbschÃtzung der Restnutzungsdauer. Stahlbau, 2008, 77, 595-607.	0.1	4
61	Size effects in the fatigue behavior of welded steel tubular bridge joints. Materialwissenschaft Und Werkstofftechnik, 2008, 39, 740-748.	0.9	10
62	Probabilistic fatigue analysis of shop and field treated tubular truss bridges. Journal of Constructional Steel Research, 2008, 64, 156-166.	3.9	5
63	A probabilistic assessment of the effect of post-weld treatment on the fatigue performance of tubular truss bridges. Engineering Structures, 2008, 30, 247-257.	5.3	23
64	Fatigue design of cast steel nodes in tubular bridge structures. International Journal of Fatigue, 2008, 30, 528-537.	5.7	33
65	SIZE EFFECT OF WELDED THIN-WALLED TUBULAR JOINTS. International Journal of Structural Stability and Dynamics, 2007, 07, 101-127.	2.4	13
66	Tubular Trusses for Steel-Concrete Composite Bridges. IABSE Symposium Report, 2007, , .	0.0	1
67	Benefits of Post-Weld Treatment to Improve Tubular Bridge Fatigue Performance. , 2007, , .		3
68	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
69	A probabilistic model for determining the effect of post-weld treatment on the fatigue performance of tubular bridge joints. International Journal of Fatigue, 2007, 29, 516-532.	5.7	21
70	Experimental study on the fatigue behaviour of welded tubular K-joints for bridges. Engineering Structures, 2006, 28, 745-755.	5.3	57
71	Delamination effects on cracked steel members reinforced by prestressed composite patch. Theoretical and Applied Fracture Mechanics, 2003, 39, 61-71.	4.7	64
72	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

#	Article	IF	Citations
73	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
74	On the practical use of weld improvement methods. Structural Control and Health Monitoring, 2001, 3, 95-105.	0.7	1
75	Behavior of Long Fatigue Cracks in Cellular Box Beam. Journal of Structural Engineering, 1999, 125, 1232-1238.	3.4	14