

# Michele Zappalorto

## List of Publications by Year in descending order

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96  
papers

2,934  
citations

147801

31  
h-index

182427

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97  
all docs

97  
docs citations

97  
times ranked

1452  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rapid calculations of notch stress intensity factors based on averaged strain energy density from coarse meshes: Theoretical bases and applications. <i>International Journal of Fatigue</i> , 2010, 32, 1559-1567.	5.7	262
2	Toughening mechanisms in polymer nanocomposites: From experiments to modelling. <i>Composites Science and Technology</i> , 2016, 123, 187-204.	7.8	181
3	Some advantages derived from the use of the strain energy density over a control volume in fatigue strength assessments of welded joints. <i>International Journal of Fatigue</i> , 2008, 30, 1345-1357.	5.7	174
4	Local strain energy density and fatigue strength of welded joints under uniaxial and multiaxial loading. <i>Engineering Fracture Mechanics</i> , 2008, 75, 1875-1889.	4.3	173
5	Influence of the interphase zone on the nanoparticle debonding stress. <i>Composites Science and Technology</i> , 2011, 72, 49-55.	7.8	100
6	In-plane and out-of-plane stress field solutions for V-notches with end holes. <i>International Journal of Fracture</i> , 2011, 168, 167-180.	2.2	82
7	Fracture behaviour of notched round bars made of PMMA subjected to torsion at room temperature. <i>Engineering Fracture Mechanics</i> , 2012, 90, 143-160.	4.3	79
8	A multiscale model to describe nanocomposite fracture toughness enhancement by the plastic yielding of nanovoids. <i>Composites Science and Technology</i> , 2012, 72, 1683-1691.	7.8	72
9	Plastic shear bands and fracture toughness improvements of nanoparticle filled polymers: A multiscale analytical model. <i>Composites Part A: Applied Science and Manufacturing</i> , 2013, 48, 144-152.	7.6	70
10	Elastic stress distributions for hyperbolic and parabolic notches in round shafts under torsion and uniform antiplane shear loadings. <i>International Journal of Solids and Structures</i> , 2008, 45, 4879-4901.	2.7	68
11	A multi-scale and multi-mechanism approach for the fracture toughness assessment of polymer nanocomposites. <i>Composites Science and Technology</i> , 2014, 91, 16-21.	7.8	68
12	Analytical model for the prediction of the piezoresistive behavior of CNT modified polymers. <i>Composites Part B: Engineering</i> , 2017, 109, 53-63.	12.0	58
13	Mixed mode (I+II) fracture toughness of polymer nanoclay nanocomposites. <i>Engineering Fracture Mechanics</i> , 2013, 111, 50-64.	4.3	53
14	A three-dimensional stress field solution for pointed and sharply radiused V-notches in plates of finite thickness. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2012, 35, 1105-1119.	3.4	51
15	Stress field equations for U and blunt V-shaped notches in axisymmetric shafts under torsion. <i>International Journal of Fracture</i> , 2010, 164, 253-269.	2.2	45
16	Generalised stress intensity factors for rounded notches in plates under in-plane shear loading. <i>International Journal of Fracture</i> , 2011, 170, 123-144.	2.2	45
17	Plastic notch stress intensity factors for pointed V-notches under antiplane shear loading. <i>International Journal of Fracture</i> , 2008, 152, 1-25.	2.2	44
18	Strategies for the assessment of nanocomposite mechanical properties. <i>Composites Part B: Engineering</i> , 2012, 43, 2290-2297.	12.0	43

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19	Three-dimensional stress fields due to notches in plates under linear elastic and elastic-plastic conditions. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2015, 38, 140-153.	3.4	43
20	Highly conductive ultra-sensitive SWCNT-coated glass fiber reinforcements for laminate composites structural health monitoring. <i>Composites Part B: Engineering</i> , 2019, 169, 37-44.	12.0	43
21	Practical expressions for the notch stress concentration factors of round bars under torsion. <i>International Journal of Fatigue</i> , 2011, 33, 382-395.	5.7	40
22	Fracture and interlaminar properties of clay-modified epoxies and their glass reinforced laminates. <i>Engineering Fracture Mechanics</i> , 2012, 81, 80-93.	4.3	40
23	Mechanical behaviour of epoxy/silica nanocomposites: Experiments and modelling. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 72, 58-64.	7.6	39
24	A new version of the Neuber rule accounting for the influence of the notch opening angle for out-of-plane shear loads. <i>International Journal of Solids and Structures</i> , 2009, 46, 1901-1910.	2.7	38
25	An efficient RVE formulation for the analysis of the elastic properties of spherical nanoparticle reinforced polymers. <i>Computational Materials Science</i> , 2015, 96, 319-326.	3.0	38
26	Influence of interphase and filler distribution on the elastic properties of nanoparticle filled polymers. <i>Mechanics Research Communications</i> , 2013, 52, 92-94.	1.8	37
27	An engineering formula for the stress concentration factor of orthotropic composite plates. <i>Composites Part B: Engineering</i> , 2015, 68, 51-58.	12.0	37
28	Analytical study of stress distributions due to semi-elliptic notches in shafts under torsion loading. <i>International Journal of Engineering Science</i> , 2007, 45, 308-328.	5.0	35
29	Elastic notch stress intensity factors for sharply V-notched rounded bars under torsion. <i>Engineering Fracture Mechanics</i> , 2009, 76, 439-453.	4.3	35
30	A unified approach to the analysis of nonlinear stress and strain fields ahead of mode III-loaded notches and cracks. <i>International Journal of Solids and Structures</i> , 2010, 47, 851-864.	2.7	33
31	Three-dimensional elastic stress fields ahead of notches in thick plates under various loading conditions. <i>Engineering Fracture Mechanics</i> , 2013, 108, 75-88.	4.3	33
32	Analytical study of the elastic-plastic stress fields ahead of parabolic notches under antiplane shear loading. <i>International Journal of Fracture</i> , 2007, 148, 139-154.	2.2	30
33	Stress fields due to inclined notches and shoulder fillets in shafts under torsion. <i>Journal of Strain Analysis for Engineering Design</i> , 2011, 46, 187-199.	1.8	30
34	Delamination onset in symmetric cross-ply laminates under static loads: Theory, numerics and experiments. <i>Composite Structures</i> , 2017, 176, 420-432.	5.8	30
35	Nanoparticle debonding strength: A comprehensive study on interfacial effects. <i>International Journal of Solids and Structures</i> , 2013, 50, 3225-3232.	2.7	28
36	Fictitious Notch Rounding Concept Applied to V-Notches with End Holes Under Mode I Loading. <i>International Journal of Fracture</i> , 2011, 171, 91-98.	2.2	27

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37	Strain energy-based evaluations of plastic notch stress intensity factors at pointed V-notches under tension. <i>Engineering Fracture Mechanics</i> , 2011, 78, 2691-2706.	4.3	26
38	Stress distributions for blunt cracks and radiused slits in anisotropic plates under in-plane loadings. <i>International Journal of Solids and Structures</i> , 2015, 56-57, 136-141.	2.7	26
39	Electrical response of a laminate with a delamination: modelling and experiments. <i>Composites Science and Technology</i> , 2017, 143, 31-45.	7.8	23
40	Stress fields at sharp angular corners in thick anisotropic composite plates. <i>Composite Structures</i> , 2014, 117, 346-353.	5.8	22
41	Averaged strain energy density and J-integral for U- and blunt V-shaped notches under torsion. <i>International Journal of Fracture</i> , 2014, 188, 173-186.	2.2	21
42	Multifunctional polymer nanocomposites with enhanced mechanical and anti-microbial properties. <i>Composites Part B: Engineering</i> , 2015, 80, 108-115.	12.0	21
43	The fictitious notch rounding approach applied to V-notches with root holes subjected to mode I loading. <i>Journal of Strain Analysis for Engineering Design</i> , 2012, 47, 176-186.	1.8	19
44	Stress Distributions Around Rigid Nanoparticles. <i>International Journal of Fracture</i> , 2012, 176, 105-112.	2.2	19
45	Modelling the electrical resistance change in a multidirectional laminate with a delamination. <i>Composites Science and Technology</i> , 2018, 162, 225-234.	7.8	19
46	On the stress state in rectilinear anisotropic thick plates with blunt cracks. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 103-119.	3.4	18
47	Mode I Generalised Stress Intensity Factors for rounded notches in orthotropic plates. <i>Theoretical and Applied Fracture Mechanics</i> , 2019, 101, 356-364.	4.7	18
48	Multifunctional Cu <sup>2+</sup> /montmorillonite/epoxy resin nanocomposites with antibacterial activity. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	17
49	The Effect of Surface Stresses on the Critical Debonding Stress Around Nanoparticles. <i>International Journal of Fracture</i> , 2011, 172, 97-103.	2.2	16
50	Notch effect in clay-modified epoxy: a new perspective on nanocomposite properties. <i>Composite Interfaces</i> , 2013, 20, 405-419.	2.3	16
51	Neuber's rules and other solutions: Theoretical differences, formal analogies and energy interpretations. <i>Theoretical and Applied Fracture Mechanics</i> , 2015, 79, 2-13.	4.7	16
52	Health monitoring of cross-ply laminates: Modelling the correlation between damage evolution and electrical resistance change. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 82, 151-158.	7.6	16
53	Two-dimensional stress distributions in tensioned orthotropic plates weakened by blunt V-shaped notches. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 804-819.	3.4	16
54	Practical Application of the N-SIF Approach in Fatigue Strength Assessment of Welded Joints. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2009, 53, R76-R89.	2.5	15

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55	Assessment of Debonding-Induced Toughening in Nanocomposites. <i>Procedia Engineering</i> , 2011, 10, 2973-2978.	1.2	14
56	Exact solution for the mode III stress fields ahead of cracks initiated at sharp notch tips. <i>European Journal of Mechanics, A/Solids</i> , 2018, 72, 88-96.	3.7	14
57	Improving the Antimicrobial and Mechanical Properties of Epoxy Resins via Nanomodification: An Overview. <i>Molecules</i> , 2021, 26, 5426.	3.8	14
58	On the anti-plane state of stress near pointed or sharply radiused notches in strain limiting elastic materials: closed form solution and implications for fracture assessments. <i>International Journal of Fracture</i> , 2016, 199, 169-184.	2.2	13
59	An efficient energy-based approach for the numerical assessment of mode I NSIFs in isotropic and orthotropic notched plates. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 108, 102612.	4.7	13
60	On the intensity of linear elastic high order singularities ahead of cracks and re-entrant corners. <i>International Journal of Solids and Structures</i> , 2011, 48, 953-961.	2.7	12
61	Some remarks on the Neuber rule applied to a control volume surrounding sharp and blunt notch tips. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2014, 37, 349-358.	3.4	12
62	A comprehensive description of interfibre failure in fibre reinforced composites. <i>Theoretical and Applied Fracture Mechanics</i> , 2015, 79, 91-97.	4.7	12
63	Tensile and compressive quasi-static behaviour of 40% short glass fibre - PPS reinforced composites with and without geometrical variations. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 114, 102990.	4.7	11
64	Plastic Yielding Around Nanovoids. <i>Procedia Engineering</i> , 2011, 10, 3316-3321.	1.2	10
65	Universal equations for the mode I stress distribution in finite size orthotropic plates with blunt notches and holes. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 109, 102768.	4.7	10
66	Analytical solution for the three-dimensional stress fields in anisotropic composite bimaterial corners. <i>Composite Structures</i> , 2015, 122, 127-138.	5.8	9
67	A unified solution approach for a large variety of antiplane shear and torsion notch problems: Theory and examples. <i>International Journal of Solids and Structures</i> , 2016, 102-103, 10-20.	2.7	9
68	Antiplane shear stresses in orthotropic plates with lateral blunt notches. <i>European Journal of Mechanics, A/Solids</i> , 2019, 77, 103815.	3.7	9
69	Effect of material orthotropy on the notch stress intensity factors of sharp V-notched plates under tension. <i>Theoretical and Applied Fracture Mechanics</i> , 2019, 104, 102375.	4.7	9
70	A theoretical treatise for notch and defect sensitivity under torsion. <i>Mechanics Research Communications</i> , 2010, 37, 173-176.	1.8	8
71	Electrical resistance change vs damage state in cracked symmetric laminates: A closed form solution. <i>Composite Structures</i> , 2018, 184, 1081-1091.	5.8	8
72	Two dimensional displacement and stress fields for tri-material V-notches and sharp inclusions in anisotropic plates. <i>European Journal of Mechanics, A/Solids</i> , 2020, 80, 103927.	3.7	8

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73	Advances in damage mechanics of polymer composites. Composites Part B: Engineering, 2014, 65, 1.	12.0	7
74	Analytical study on the mode III stress fields due to blunt notches with cracks. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 612-626.	3.4	7
75	Prediction of the Seebeck coefficient of thermoelectric unidirectional fibre-reinforced composites. Composites Part B: Engineering, 2021, 223, 109111.	12.0	7
76	Toughening mechanisms in nanoparticle polymer composites. , 2015, , 113-133.		6
77	Effectiveness of the random sequential absorption algorithm in the analysis of volume elements with nanoplatelets. Computational Materials Science, 2016, 117, 511-517.	3.0	6
78	Multifunctional Epoxy/Nanocomposites Based on Natural Moroccan Clays with High Antimicrobial Activity: Morphological, Thermal and Mechanical Properties. Journal of Nanomaterials, 2019, 2019, 1-12.	2.7	6
79	Nonlinear mode III crack stress fields for materials obeying a modified Ramberg-Osgood law. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 708-714.	3.4	5
80	Bodies described by non-monotonic strain-stress constitutive equations containing a crack subject to anti-plane shear stress. International Journal of Mechanical Sciences, 2018, 149, 494-499.	6.7	5
81	Modelling the electrical resistance of multidirectional laminates with off-axis cracks. Composite Structures, 2020, 237, 111928.	5.8	5
82	Stress distributions in orthotropic solids with blunt notches under in-plane shear loadings. European Journal of Mechanics, A/Solids, 2022, 92, 104436.	3.7	5
83	Static notch sensitivity in orthotropic materials and composites. European Journal of Mechanics, A/Solids, 2021, 85, 104094.	3.7	4
84	On the use of elemental quantities to compute NSIFs at pointed V-notches with non-regular coarse meshes. Theoretical and Applied Fracture Mechanics, 2021, 116, 103083.	4.7	4
85	Understanding the effect of notches in orthotropic solids subjected to static loads. Theoretical and Applied Fracture Mechanics, 2021, 116, 103110.	4.7	4
86	Notch Stress Intensity Factors Applied to U and V-Shaped Radiused Notches under In-plane Shear Loading. Procedia Engineering, 2011, 10, 1115-1120.	1.2	3
87	Torsional stress distributions in tubes with external and internal notches. Journal of Strain Analysis for Engineering Design, 2012, 47, 331-340.	1.8	3
88	Recent developments in multi-parametric three-dimensional stress field representation in plates weakened by cracks and notches. Frattura Ed Integrita Strutturale, 2013, 7, 61-68.	0.9	3
89	Determination of high-order fields for multianisotropic material antiplane V-notches and inclusions by the asymptotic expansion technique and an overdeterministic method. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1384-1398.	3.4	3
90	J-Integral for Deep and Shallow Notches Under Torsion. International Journal of Fracture, 2013, 181, 301-308.	2.2	2

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91	On the use of the peak stress method to assess the linear elastic and the fatigue notch factors of notched components under tension. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 1917-1927.	3.4	2
92	A damage-based modelling framework for the fatigue damage evolution in composite laminates. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	2
93	Modelling the in-plane thermoelectric properties of fibre-reinforced multi-directional laminates. <i>Composites Science and Technology</i> , 2021, 218, 109130.	7.8	1
94	Modelling the correlation between the electrical resistance and stiffness degradation in conductive composite laminates with complex damage scenarios. <i>Composite Structures</i> , 2021, , 114914.	5.8	1
95	Neuber fictitious notch rounding approach reformulated for orthotropic materials. <i>Engineering Fracture Mechanics</i> , 2018, 191, 441-445.	4.3	0
96	Strain fields in cracked bodies under antiplane shear for a generalised non-hardening material law. <i>Mathematics and Mechanics of Solids</i> , 2019, 24, 3125-3135.	2.4	0