

Christian Carloni

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

2,672
citations

186254

28
h-index

206102

48
g-index

92
all docs

92
docs citations

92
times ranked

1180
citing authors

#	ARTICLE	IF	CITATIONS
1	Matrix-fiber bond behavior in PBO FRCM composites: A fracture mechanics approach. <i>Engineering Fracture Mechanics</i> , 2014, 117, 94-111.	4.3	211
2	An innovative numerical modeling strategy for the structural analysis of historical monumental buildings. <i>Engineering Structures</i> , 2017, 132, 229-248.	5.3	135
3	Width effect in the interface fracture during shear debonding of FRP sheets from concrete. <i>Engineering Fracture Mechanics</i> , 2007, 74, 578-594.	4.3	119
4	Experimental determination of FRP-concrete cohesive interface properties under fatigue loading. <i>Composite Structures</i> , 2012, 94, 1288-1296.	5.8	104
5	Flexural behavior of RC beams strengthened with steel-FRCM composite. <i>Engineering Structures</i> , 2016, 127, 686-699.	5.3	103
6	A comparison of the bond behavior of PBO-FRCM composites determined by double-lap and single-lap shear tests. <i>Cement and Concrete Composites</i> , 2015, 64, 37-48.	10.7	96
7	Investigation of sub-critical fatigue crack growth in FRP/concrete cohesive interface using digital image analysis. <i>Composites Part B: Engineering</i> , 2013, 51, 35-43.	12.0	86
8	Direct determination of cohesive stress transfer during debonding of FRP from concrete. <i>Composite Structures</i> , 2010, 93, 184-192.	5.8	82
9	Influence of the substrate characteristics on the bond behavior of PBO FRCM-concrete joints. <i>Construction and Building Materials</i> , 2015, 101, 838-850.	7.2	80
10	FRP-Masonry Debonding: Numerical and Experimental Study of the Role of Mortar Joints. <i>Journal of Composites for Construction</i> , 2012, 16, 581-589.	3.2	78
11	Torsional behavior of RC beams strengthened with PBO-FRCM composite - An experimental study. <i>Engineering Structures</i> , 2017, 136, 393-405.	5.3	75
12	Flexural behaviour of RC members strengthened with FRCM: State-of-the-art and predictive formulas. <i>Composites Part B: Engineering</i> , 2018, 148, 132-148.	12.0	74
13	Steel fiber reinforced geopolymer matrix (S-FRGM) composites applied to reinforced concrete structures for strengthening applications: A preliminary study. <i>Composites Part B: Engineering</i> , 2017, 128, 83-90.	12.0	66
14	Fracture analysis for orthotropic cracked plates. <i>Composite Structures</i> , 2005, 68, 285-293.	5.8	60
15	Effect of the inherent eccentricity in single-lap direct-shear tests of PBO FRCM-concrete joints. <i>Composite Structures</i> , 2016, 142, 117-129.	5.8	60
16	FRP-masonry interfacial debonding: An energy balance approach to determine the influence of the mortar joints. <i>European Journal of Mechanics, A/Solids</i> , 2016, 55, 122-133.	3.7	60
17	Loading rate effect on the debonding phenomenon in fiber reinforced cementitious matrix-concrete joints. <i>Composites Part B: Engineering</i> , 2017, 108, 301-314.	12.0	56
18	An Understanding of the Width Effect in FRP-Concrete Debonding. <i>Strain</i> , 2011, 47, 127-137.	2.4	55

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19	Estimation of a matrix-fiber interface cohesive material law in FRCM-concrete joints. Composite Structures, 2018, 193, 103-112.	5.8	50
20	Periodic variation of the transferable load at the FRP-masonry interface. Composite Structures, 2015, 129, 90-100.	5.8	47
21	Critical comparison of the boundary effect model with cohesive crack model and size effect law. Engineering Fracture Mechanics, 2019, 215, 193-210.	4.3	47
22	Confinement of Masonry Columns with PBO FRCM Composites. Key Engineering Materials, 0, 624, 644-651.	0.4	46
23	Seismic-induced damage in historical masonry vaults: A case-study in the 2012 Emilia earthquake-stricken area. Journal of Building Engineering, 2017, 13, 224-243.	3.4	44
24	Three-Dimensional Numerical Modeling of Single-Lap Direct Shear Tests of FRCM-Concrete Joints Using a Cohesive Damaged Contact Approach. Journal of Composites for Construction, 2018, 22, .	3.2	39
25	Determination of the interfacial properties of SRP strips bonded to concrete and comparison between single-lap and notched beam tests. Engineering Fracture Mechanics, 2017, 186, 80-104.	4.3	38
26	Compressive Behavior of Brick Masonry Columns Confined with Steel-Reinforced Grout Jackets. Journal of Composites for Construction, 2019, 23, .	3.2	35
27	Crack initiation behaviour of orthotropic solids as predicted by the strain energy density theory. Theoretical and Applied Fracture Mechanics, 2002, 38, 109-119.	4.7	33
28	Maximum circumferential stress criterion applied to orthotropic materials. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 825-833.	3.4	33
29	Effects of rising damp and salt crystallization cycles in FRCM-masonry interfacial debonding: Towards an accelerated laboratory test method. Construction and Building Materials, 2018, 175, 225-238.	7.2	33
30	Experimental Analysis of the Bond Behavior of Glass, Carbon, and Steel FRCM Composites. Key Engineering Materials, 0, 624, 371-378.	0.4	32
31	The role of the fiber-matrix interfacial properties on the tensile behavior of FRCM coupons. Construction and Building Materials, 2020, 265, 120263.	7.2	32
32	An alternative complex variable formulation for an inclined crack in an orthotropic medium. Engineering Fracture Mechanics, 2003, 70, 2033-2058.	4.3	31
33	Durability of steel FRCM-masonry joints: effect of water and salt crystallization. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	3.1	29
34	Investigation of the Interface Fracture during Debonding between FRP and Masonry. Advances in Structural Engineering, 2009, 12, 731-743.	2.4	27
35	Fatigue and post-fatigue behavior of PBO FRCM-concrete joints. International Journal of Fatigue, 2015, 81, 91-104.	5.7	27
36	Confinement of Clay Masonry Columns with SRG. Key Engineering Materials, 0, 747, 350-357.	0.4	27

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37	Fiber Reinforced Composites with Cementitious (Inorganic) Matrix. RILEM State-of-the-Art Reports, 2016, , 349-392.	0.7	25
38	Determination of the interfacial cohesive material law for SRG composites bonded to a masonry substrate. Engineering Failure Analysis, 2020, 111, 104322.	4.0	24
39	Strain energy density prediction of crack initiation and direction in cracked T-beams and pipes. Theoretical and Applied Fracture Mechanics, 2004, 41, 137-145.	4.7	21
40	Confinement of Masonry Columns with Steel and Basalt FRCM Composites. Key Engineering Materials, 0, 747, 342-349.	0.4	20
41	Numerical modeling of FRP strips bonded to a masonry substrate. Composite Structures, 2018, 200, 420-433.	5.8	20
42	Investigation of Bond Behavior of Polyparaphenylene Benzobisoxazole Fiber-Reinforced Cementitious Matrix-Concrete Interface. ACI Materials Journal, 2014, 111, .	0.2	20
43	Width Effect in FRPâ€œConcrete Debonding Mechanism: A New Formula. Journal of Composites for Construction, 2020, 24, .	3.2	19
44	Influence of the width of the specimen on the fracture response of concrete notched beams. Engineering Fracture Mechanics, 2019, 216, 106465.	4.3	18
45	Relationship between the effective strain of PBO FRCM-strengthened RC beams and the debonding strain of direct shear tests. Engineering Structures, 2020, 216, 110631.	5.3	18
46	An Investigation of the Debonding Mechanism between FRCM Composites and a Masonry Substrate. Key Engineering Materials, 0, 747, 382-389.	0.4	17
47	A study of the compressive behavior of concrete columns confined with SRP jackets using digital image analysis. Composite Structures, 2017, 179, 195-207.	5.8	16
48	Analytical Bond-Slip Model for Fiber-Reinforced Cementitious Matrix-Concrete Joints Based on Strain Measurements. Journal of Materials in Civil Engineering, 2019, 31, .	2.9	16
49	The role of mortar matrix in the bond behavior and salt crystallization resistance of FRCM applied to masonry. Construction and Building Materials, 2019, 209, 592-605.	7.2	16
50	An investigation on the â€œwidth and size effectâ€œin the evaluation of the fracture energy of concrete. Procedia Structural Integrity, 2017, 3, 450-458.	0.8	15
51	Fatigue Behavior of PBO FRCM Composite Applied to Concrete Substrate. Materials, 2020, 13, 2368.	2.9	12
52	Experimental Investigation of Glass and Carbon FRCM Composite Materials Applied onto Concrete Supports. Applied Mechanics and Materials, 2016, 847, 60-67.	0.2	11
53	A new predictive model for FRCM-confined columns: A reflection on the composite behavior at peak stress. Construction and Building Materials, 2022, 337, 127534.	7.2	11
54	Tensile Testing of FRCM Coupons for Material Characterization: Discussion of Critical Aspects. Journal of Composites for Construction, 2022, 26, .	3.2	10

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55	Size Effect on Shear Strength of Reinforced Concrete: Is CSCT or MCFT a Viable Alternative to Energy-Based Design Code?. Journal of Engineering Mechanics - ASCE, 2020, 146, .	2.9	8
56	Environmentally-induced loss of performance in FRP strengthening systems bonded to full-scale masonry structures. Construction and Building Materials, 2020, 249, 118757.	7.2	8
57	Destructive & In Situ Tests on Masonry Arches Strengthened with FRCM Composite Materials. Key Engineering Materials, 0, 747, 567-573.	0.4	7
58	Advances in Knowledge of the Fracture Properties of Cohesive Materials: Fired-Clay and Tuff Bricks. Journal of Engineering Mechanics - ASCE, 2020, 146, .	2.9	7
59	Bond Between EBR FRP and Concrete. RILEM State-of-the-Art Reports, 2016, , 39-96.	0.7	6
60	Mechanical Characterization of SRG Composites According to AC434. Key Engineering Materials, 0, 817, 458-465.	0.4	6
61	Use of digital image analysis to determine fracture properties of alkali-activated mortars. Engineering Fracture Mechanics, 2020, 240, 107313.	4.3	6
62	Biaxial Load Effect on Crack Initiation for Orthotropic Materials. Meccanica, 2004, 39, 331-344.	2.0	5
63	Bond of Steel Bars to Masonry Mortar Joints: Test Results and Analytical Modelling. Key Engineering Materials, 0, 747, 319-325.	0.4	5
64	Analytical Modelling of the Tensile Response of PBO-FRCM Composites. Lecture Notes in Mechanical Engineering, 2020, , 527-536.	0.4	5
65	Flexural behavior RC beams strengthened and repaired with SRP composite. Engineering Structures, 2022, 258, 114084.	5.3	5
66	Modeling environmental ageing in masonry strengthened with composites. Engineering Structures, 2019, 201, 109773.	5.3	4
67	A Study of the Fracture Process at the FRP-Masonry Interface: The Role of the Periodic Pattern of Bricks and Mortar Joints. Key Engineering Materials, 2014, 624, 611-618.	0.4	3
68	Approximate Evaluation of Maximum Force Transferable at FRP-Masonry Interface. Journal of Composites for Construction, 2019, 23, 04019050.	3.2	3
69	Salt-Induced Deterioration on FRP-Brick Masonry Bond. RILEM Bookseries, 2019, , 1914-1921.	0.4	3
70	Adhesion between SRP and masonry: Laboratory simulations of the field moisture and salt conditions. Construction and Building Materials, 2020, 264, 120697.	7.2	3
71	Concrete columns confined with SRP: Effect of the size, cross-sectional shape and amount of confinement. Construction and Building Materials, 2021, 275, 121618.	7.2	3
72	Fatigue Behavior of FRCM Strengthened RC Beams: State of the Art and Future Developments. Lecture Notes in Civil Engineering, 2022, , 201-212.	0.4	3

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73	Debonding between FRP and Underlying Masonry: First Results of a 3D Finite Element Model. Key Engineering Materials, 2014, 624, 437-443.	0.4	2
74	Influence of the width of the specimen on the fracture response of concrete notched beams. Engineering Fracture Mechanics, 2018, , .	4.3	2
75	Adhesion between SRP and Masonry: Influence of Moist Condition of Specimens and Presence of Salts in the Substrate. Key Engineering Materials, 0, 817, 182-188.	0.4	2
76	Performance of Different Types of FRCM Composites Applied to a Concrete Substrate. RILEM Bookseries, 2018, , 778-786.	0.4	2
77	Tensile Tests of FRCM Coupons: The Influence of the Fiber-Matrix Bond Properties. Lecture Notes in Civil Engineering, 2022, , 2008-2019.	0.4	2
78	A Cohesive Contact Algorithm to Describe the Multi-axial Bond Behavior of FRCM Composites. Lecture Notes in Civil Engineering, 2022, , 2073-2082.	0.4	2
79	An experimental study of the bond behavior of twisted steel bars embedded in mortar cylinders and in the joints of masonry wallettes. Construction and Building Materials, 2022, 316, 125795.	7.2	2
80	Relationship between Results of Tensile Test of FRCM Composites and the Fiber-Matrix Bond Properties. Key Engineering Materials, 0, 916, 417-424.	0.4	2
81	Shear Debonding of FRP from Concrete: The Influence of FRP Sheet Width on Load Carrying Capacity. Key Engineering Materials, 2007, 348-349, 93-96.	0.4	1
82	Bond Behavior between Tuff and Fired-Clay Brick Masonry Blocks and SRG Composites. Key Engineering Materials, 2019, 817, 118-125.	0.4	1
83	Some Key Aspects in the Mechanics of Stress Transfer Between SRG and Masonry. Applied Sciences (Switzerland), 2020, 10, 7303.	2.5	1
84	Discussion of the article "From experimental evidence to mechanical modeling and design expressions: The critical shear crack theory for shear design". Structural Concrete, 2020, 21, 1688-1689.	3.1	1
85	Special Problems. RILEM State-of-the-Art Reports, 2016, , 195-262.	0.7	1
86	A Comparison Between the Bond Behavior of SRP and SRG Strengthening Systems Applied to a Masonry Substrate. RILEM Bookseries, 2019, , 1743-1750.	0.4	1
87	Determination of the Matrix-Fiber Cohesive Material Law of FRCM-Concrete Joints. Key Engineering Materials, 0, 919, 55-64.	0.4	1
88	Discussion of the article "On shear in members without stirrups and the application of energy-based methods in light of 30 years of test observations". Structural Concrete, 2020, 21, 1693-1694.	3.1	0
89	Compressive Behavior of Masonry Columns Confined with Multi-layer SRG Composite. Lecture Notes in Civil Engineering, 2022, , 531-541.	0.4	0
90	A Discussion of Differences Between Single-Lap Tests and Full-Scale Beam Tests in Terms of FRCM-Concrete Debonding. Lecture Notes in Civil Engineering, 2022, , 609-620.	0.4	0