

# Jaime Mata-Falc3n

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1773606/publications.pdf>

Version: 2024-02-01

31  
papers

1,075  
citations

687363

13  
h-index

454955

30  
g-index

31  
all docs

31  
docs citations

31  
times ranked

518  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rethinking reinforcement for digital fabrication with concrete. Cement and Concrete Research, 2018, 112, 111-121.	11.0	257
2	Automated crack detection and measurement based on digital image correlation. Construction and Building Materials, 2020, 256, 119383.	7.2	133
3	Opportunities and challenges for structural engineering of digitally fabricated concrete. Cement and Concrete Research, 2020, 133, 106079.	11.0	117
4	Structural behaviour of 3D printed concrete beams with various reinforcement strategies. Engineering Structures, 2021, 240, 112380.	5.3	68
5	Structural stay-in-place formwork for robotic in situ fabrication of non-standard concrete structures: A real scale architectural demonstrator. Automation in Construction, 2020, 115, 103197.	9.8	63
6	From Smart Dynamic Casting to a growing family of Digital Casting Systems. Cement and Concrete Research, 2020, 134, 106071.	11.0	62
7	Combined application of distributed fibre optical and digital image correlation measurements to structural concrete experiments. Engineering Structures, 2020, 225, 111309.	5.3	58
8	Eggshell: Ultra-Thin Three-Dimensional Printed Formwork for Concrete Structures. 3D Printing and Additive Manufacturing, 2020, 7, 48-59.	2.9	54
9	Refined extraction of crack characteristics in large-scale concrete experiments based on digital image correlation. Engineering Structures, 2022, 251, 113486.	5.3	39
10	Proposal and experimental validation of simplified strut-and-tie models on dapped-end beams. Engineering Structures, 2019, 183, 594-609.	5.3	34
11	Fundamental Studies on the Use of Distributed Fibre Optical Sensing on Concrete and Reinforcing Bars. Sensors, 2021, 21, 7643.	3.8	27
12	Exploiting the Potential of Digital Fabrication for Sustainable and Economic Concrete Structures. RILEM Bookseries, 2019, , 157-166.	0.4	20
13	Application of Distributed Fibre Optical Sensing in Reinforced Concrete Elements Subjected to Monotonic and Cyclic Loading. Sensors, 2022, 22, 2023.	3.8	19
14	Load-deformation behaviour of weft-knitted textile reinforced concrete in uniaxial tension. Materials and Structures/Materiaux Et Constructions, 2021, 54, 210.	3.1	15
15	Inter-laboratory study on the influence of 3D concrete printing set-ups on the bond behaviour of various reinforcements. Cement and Concrete Composites, 2022, 133, 104660.	10.7	13
16	Compression Field Analysis of Fiber-Reinforced Concrete Based on Cracked Membrane Model. ACI Structural Journal, 2019, 116, .	0.2	11
17	Aligned Interlayer Fibre Reinforcement and Post-tensioning as a Reinforcement Strategy for Digital Fabrication. RILEM Bookseries, 2020, , 622-631.	0.4	9
18	Design and Fabrication of a Non-standard, Structural Concrete Column Using Eggshell: Ultra-Thin, 3D Printed Formwork. RILEM Bookseries, 2020, , 1104-1115.	0.4	8

#	ARTICLE	IF	CITATIONS
19	Effective reinforcement ratio of <math>RC</math> beams: Validation of modelling assumptions with high-resolution strain data. <i>Structural Concrete</i> , 2022, 23, 1353-1369.	3.1	8
20	Towards efficient concrete structures with ultra-thin 3D printed formwork: exploring reinforcement strategies and optimisation. <i>Virtual and Physical Prototyping</i> , 2022, 17, 599-616.	10.4	8
21	Cracked Membrane Model with Fixed, Interlocked Cracks: Numerical Implementation and Validation. <i>Journal of Structural Engineering</i> , 2020, 146, .	3.4	7
22	Future directions for research on shear in structural concrete. <i>Fibre-reinforced Concrete: From Design To Structural Applications</i> , 2018, , 323-336.	0.0	7
23	Potential Approaches for Reinforcing Complex Concrete Structures with Integrated Flexible Formwork. <i>RILEM Bookseries</i> , 2020, , 669-679.	0.4	7
24	Analysis of the tension chord in the flexural response of concrete elements: Methodology and application to weft-knitted textile reinforcement. <i>Engineering Structures</i> , 2022, 261, 114270.	5.3	7
25	Influence of short glass fibres and spatial features on the mechanical behaviour of weft-knitted textile reinforced concrete elements in bending. <i>Construction and Building Materials</i> , 2022, 344, 128167.	7.2	7
26	Aligned Interlayer Fibre Reinforcement for Digital Fabrication with Concrete. <i>RILEM Bookseries</i> , 2021, , 87-98.	0.4	6
27	Structural Design and Testing of Digitally Manufactured Concrete Structures. <i>RILEM State-of-the-Art Reports</i> , 2022, , 187-222.	0.7	3
28	Mesh Mould Prefabrication. <i>RILEM Bookseries</i> , 2022, , 31-36.	0.4	3
29	Structural design possibilities of reinforced concrete beams using eggshell. , 2021, , .		2
30	Pre-installed Reinforcement for 3D Concrete Printing. <i>RILEM Bookseries</i> , 2022, , 430-435.	0.4	2
31	Digitally Fabricated Keyed Concrete Connections. <i>RILEM Bookseries</i> , 2022, , 241-246.	0.4	1