

# Matthias Kohler

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4364356/publications.pdf>

Version: 2024-02-01

41  
papers

2,071  
citations

623734

14  
h-index

501196

28  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1662  
citing authors

#	ARTICLE	IF	CITATIONS
1	Digital Concrete: Opportunities and Challenges. RILEM Technical Letters, 0, 1, 67-75.	0.0	429
2	Rethinking drug design in the artificial intelligence era. Nature Reviews Drug Discovery, 2020, 19, 353-364.	46.4	394
3	Complex concrete structures. CAD Computer Aided Design, 2015, 60, 40-49.	2.7	219
4	Robotic timber construction "Expanding additive fabrication to new dimensions. Automation in Construction, 2016, 61, 16-23.	9.8	131
5	Mobile robotic fabrication at 1:1 scale: the In situ Fabricator. Construction Robotics, 2017, 1, 3-14.	2.2	88
6	Robotic prefabrication of timber structures: towards automated large-scale spatial assembly. Construction Robotics, 2017, 1, 49-60.	2.2	70
7	From Smart Dynamic Casting to a growing family of Digital Casting Systems. Cement and Concrete Research, 2020, 134, 106071.	11.0	62
8	Mobile robotic fabrication on construction sites: DimRob. , 2012, , .		60
9	Building tensile structures with flying machines. , 2013, , .		60
10	Eggshell: Ultra-Thin Three-Dimensional Printed Formwork for Concrete Structures. 3D Printing and Additive Manufacturing, 2020, 7, 48-59.	2.9	54
11	Jammed architectural structures: towards large-scale reversible construction. Granular Matter, 2016, 18, 1.	2.2	46
12	Mobile Robotic Brickwork. , 2016, , 204-217.		44
13	Mobile robotic fabrication beyond factory conditions: case study Mesh Mould wall of the DFAB HOUSE. Construction Robotics, 2019, 3, 53-67.	2.2	40
14	Autonomous robotic stone stacking with online next best object target pose planning. , 2017, , .		39
15	Autonomous repositioning and localization of an in situ fabricator. , 2016, , .		29
16	Autonomous dry stone. Construction Robotics, 2020, 4, 127-140.	2.2	28
17	Challenges of Real-Scale Production with Smart Dynamic Casting. RILEM Bookseries, 2019, , 299-310.	0.4	22
18	MESH-MOULD:. , 2017, , 224-232.		21

#	ARTICLE	IF	CITATIONS
19	Investigations on densified beech wood for application as a swelling dowel in timber joints. <i>Holzforschung</i> , 2019, 73, 559-568.	1.9	19
20	Accurate and Adaptive in Situ Fabrication of an Undulated Wall Using an on-Board Visual Sensing System. , 2018, , .		17
21	Iridescence Print: Robotically Printed Lightweight Mesh Structures. <i>3D Printing and Additive Manufacturing</i> , 2015, 2, 117-122.	2.9	16
22	Crafting plaster through continuous mobile robotic fabrication on-site. <i>Construction Robotics</i> , 2020, 4, 261-271.	2.2	16
23	The Sequential Roof. , 2016, , 45-59.		16
24	Interactive Robotic Plastering: Augmented Interactive Design and Fabrication for On-site Robotic Plastering. , 2022, , .		13
25	Mastering Yield Stress Evolution and Formwork Friction for Smart Dynamic Casting. <i>Materials</i> , 2020, 13, 2084.	2.9	12
26	Topology Optimization and Robotic Fabrication of Advanced Timber Space-Frame Structures. , 2016, , 190-203.		12
27	Grasping and Object Reorientation for Autonomous Construction of Stone Structures. <i>IEEE Robotics and Automation Letters</i> , 2021, 6, 5105-5112.	5.1	9
28	Aligned Interlayer Fibre Reinforcement and Post-tensioning as a Reinforcement Strategy for Digital Fabrication. <i>RILEM Bookseries</i> , 2020, , 622-631.	0.4	9
29	COOPERATIVE FABRICATION OF SPATIAL METAL STRUCTURES. , 2017, , 24-29.		9
30	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
31	Rock print Pavilion: robotically fabricating architecture from rock and string. <i>Construction Robotics</i> , 2020, 4, 97-113.	2.2	7
32	Robotic Plaster Spraying: Crafting Surfaces with Adaptive Thin-Layer Printing. <i>3D Printing and Additive Manufacturing</i> , 2022, 9, 177-188.	2.9	7
33	Stylized robotic clay sculpting. <i>Computers and Graphics</i> , 2021, 98, 150-164.	2.5	6
34	Impact Printing. <i>3D Printing and Additive Manufacturing</i> , 2022, 9, 203-211.	2.9	6
35	RobotSculptor: Artist-Directed Robotic Sculpting of Clay. , 2020, , .		6
36	Additive Digital Casting: From Lab to Industry. <i>Materials</i> , 2022, 15, 3468.	2.9	6

#	ARTICLE	IF	CITATIONS
37	Designing Roboticallyâ€Constructed Metal Frame Structures. Computer Graphics Forum, 2020, 39, 411-422.	3.0	5
38	The Brick Labyrinth. , 2019, , 489-500.		4
39	A Pedagogy of Digital Materiality: Integrated Design and Robotic Fabrication Projects of the Master of Advanced Studies in Architecture and Digital Fabrication. Architecture, Structures and Construction, 2022, 2, 649-660.	1.5	4
40	The new analog: A protocol for linking design and construction intent with algorithmic planning for robotic assembly of complex structures. , 2021, , .		2
41	Depth-camera-based rebar detection and digital reconstruction for robotic concrete spraying. Construction Robotics, 2021, 5, 191-202.	2.2	2