

Olivier Baverel

List of Publications by Year in descending order

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Version: 2024-02-01

34
papers

482
citations

567281

15
h-index

713466

21
g-index

35
all docs

35
docs citations

35
times ranked

284
citing authors

#	ARTICLE	IF	CITATIONS
1	Additive manufacturing of cantilever - From masonry to concrete 3D printing. Automation in Construction, 2020, 116, 103184.	9.8	58
2	Dialectic Form Finding of Passive and Adaptive Shading Enclosures. Energies, 2014, 7, 5201-5220.	3.1	33
3	Optimization of gridshell bar orientation using a simplified genetic approach. Structural and Multidisciplinary Optimization, 2014, 50, 839-848.	3.5	28
4	Selfstressed bowstring footbridge in FRP. Composite Structures, 2009, 89, 489-496.	5.8	27
5	Isogonal moulding surfaces: A family of shapes for high node congruence in free-form structures. Automation in Construction, 2015, 59, 38-47.	9.8	27
6	Linear buckling of quadrangular and kagome gridshells: A comparative assessment. Engineering Structures, 2017, 132, 337-348.	5.3	26
7	Gridshells in Composite Materials: Construction of a 300 m ² Forum for the Solidays [™] Festival in Paris. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 2012, 22, 408-414.	0.8	25
8	Isoradial meshes: Covering elastic gridshells with planar facets. Automation in Construction, 2017, 83, 222-236.	9.8	22
9	Layer pressing in concrete extrusion-based 3D-printing: Experiments and analysis. Cement and Concrete Research, 2022, 155, 106741.	11.0	22
10	Form finding of nexorades using the translations method. Automation in Construction, 2018, 95, 142-154.	9.8	21
11	Nexorades Based on Regular Polyhedra. Nexus Network Journal, 2007, 9, 281-298.	0.7	19
12	Marionette Meshes: Modelling free-form architecture with planar facets. International Journal of Space Structures, 2017, 32, 184-198.	1.0	19
13	Morphogenesis of surfaces with planar lines of curvature and application to architectural design. Automation in Construction, 2018, 95, 129-141.	9.8	19
14	On the Design and Construction of Elastic Gridshells with Irregular Meshes. International Journal of Space Structures, 2013, 28, 161-174.	1.0	17
15	Construction of a Large Composite Gridshell Structure: A Lightweight Structure Made with Pultruded Glass Fibre Reinforced Polymer Tubes. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 2016, 26, 160-167.	0.8	17
16	Generalised cyclidic nets for shape modelling in architecture. International Journal of Architectural Computing, 2017, 15, 148-168.	1.5	14
17	Surfaces with planar curvature lines: Discretization, generation and application to the rationalization of curved architectural envelopes. Automation in Construction, 2019, 106, 102880.	9.8	12
18	Caravel meshes: A new geometrical strategy to rationalize curved envelopes. Structures, 2020, 28, 1210-1228.	3.6	10

#	ARTICLE	IF	CITATIONS
19	Free-form structures from topologically interlocking masonries. Automation in Construction, 2020, 113, 103117.	9.8	10
20	Morphological and Mechanical Investigation of Double-Layer Reciprocal Structures. Nexus Network Journal, 2014, 16, 191-206.	0.7	9
21	Reciprocal Systems Based on Planar Elements: Morphology and Design Explorations. Nexus Network Journal, 2014, 16, 179-189.	0.7	6
22	Fabrication-aware shape parametrisation for the structural optimisation of shell structures. Engineering Structures, 2018, 176, 569-584.	5.3	6
23	Assessing environmental impact of digital fabrication and reuse of constructive systems. Structures, 2021, 31, 1300-1310.	3.6	5
24	Free Deposition Printing for Space Truss Structures. RILEM Bookseries, 2020, , 873-882.	0.4	5
25	Generation of elastic geodesic gridshells with anisotropic cross sections. International Journal of Space Structures, 2021, 36, 294-306.	1.0	5
26	Morphological and Mechanical Investigation of Interconnected Elastic Gridshells. International Journal of Space Structures, 2013, 28, 175-186.	1.0	3
27	Large Displacements and the Stiffness of a Flexible Shell. International Journal of Space Structures, 2015, 30, 287-296.	1.0	3
28	The Caravel heX-Mesh pavilion, illustration of a new strategy for gridshell rationalization. SN Applied Sciences, 2020, 2, 1.	2.9	3
29	Discrete Voss surfaces: Designing geodesic gridshells with planar cladding panels. Automation in Construction, 2022, 140, 104200.	9.8	3
30	Occupant-centered optimization framework to evaluate and design new dynamic shading typologies. PLoS ONE, 2020, 15, e0231554.	2.5	2
31	Scaffold-free 3D printing of shells: Introduction to patching grammar. Automation in Construction, 2022, 139, 104306.	9.8	2
32	Patterns for gridshells with negligible geometrical torsion at nodes. Curved and Layered Structures, 2021, 8, 147-156.	1.3	1
33	Proposals to make Complex Structures Affordable. IABSE Symposium Report, 2018, , .	0.0	1
34	Environmental Impacts of 6-Axes Robotic Arm for 3D Concrete Printing. RILEM Bookseries, 2020, , 1023-1030.	0.4	1