Dominique Jeulin

List of Publications by Year
in descending order

45 papers	2,679 citations	394421 19 h-index	265206 42 g-index
47 all docs	47 docs citations	47 times ranked	2234 citing authors

#	Article	IF	Citations
1	Determination of the size of the representative volume element for random composites: statistical and numerical approach. International Journal of Solids and Structures, 2003, 40, 3647-3679.	2.7	1,535
2	Apparent and effective physical properties of heterogeneous materials: Representativity of samples of two materials from food industry. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 3960-3982.	6.6	164
3	Towards gigantic RVE sizes for 3D stochastic fibrous networks. International Journal of Solids and Structures, 2014, 51, 359-376.	2.7	96
4	Random-walk-based stochastic modeling of three-dimensional fiber systems. Physical Review E, 2011, 83, 041804.	2.1	79
5	Random texture models for material structures. Statistics and Computing, 2000, 10, 121-132.	1.5	70
6	Morphological segmentation of FIB–SEM data of highly porous media. Journal of Microscopy, 2013, 250, 77-87.	1.8	68
7	3D DIRECTIONAL MATHEMATICAL MORPHOLOGY FOR ANALYSIS OF FIBER ORIENTATIONS. Image Analysis and Stereology, 2009, 28, 143.	0.9	43
8	Three-dimensional microtomographic study of Widmanstätten microstructures in an alpha/beta titanium alloy. Scripta Materialia, 2008, 58, 512-515.	5.2	39
9	Elastic behavior of composites containing Boolean random sets of inhomogeneities. International Journal of Engineering Science, 2009, 47, 313-324.	5.0	38
10	Morphology and effective properties of multi-scale random sets: A review. Comptes Rendus - Mecanique, 2012, 340, 219-229.	2.1	37
11	Influence of the fiber geometry on the macroscopic elastic and thermal properties. International Journal of Solids and Structures, 2014, 51, 3807-3822.	2.7	36
12	Imaging and 3D morphological analysis of collagen fibrils. Journal of Microscopy, 2012, 247, 161-175.	1.8	33
13	SEGMENTATION OF 2D AND 3D TEXTURES FROM ESTIMATES OF THE LOCAL ORIENTATION. Image Analysis and Stereology, 2008, 27, 183.	0.9	31
14	Size effect on elastic properties of random composites. Engineering Computations, 1994, 11, 99-110.	1.4	30
15	Microstructure-induced hotspots in the thermal and elastic responses of granular media. International Journal of Solids and Structures, 2013, 50, 1699-1709.	2.7	27
16	Two-dimensional (2D) and three-dimensional (3D) analyses of plasma-sprayed alumina microstructures for finite-element simulation of Young's modulus. Journal of Materials Science, 2008, 43, 4091-4098.	3.7	24
17	Caractéristiques morphologiques des constituants et comportement à la limite élastique d'un matériau biphasé Fe/Ag. Revue De Physique Appliquée, 1989, 24, 861-869.	0.4	23
18	3D MORPHOLOGICAL MODELLING OF A RANDOM FIBROUS NETWORK. Image Analysis and Stereology, 2009, 28, 129.	0.9	23

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19	Modelling mesoporous alumina microstructure with 3D random models of platelets. Journal of Microscopy, 2015, 260, 287-301.	1.8	22
20	Morphological modelling of threeâ€phase microstructures of anode layers using SEM images. Journal of Microscopy, 2016, 263, 51-63.	1.8	20
21	Stokes Flow Through a Boolean Model of Spheres: Representative Volume Element. Transport in Porous Media, 2015, 109, 711-726.	2.6	19
22	Numerical modeling of the thermal expansion of an energetic material. International Journal of Solids and Structures, 2015, 60-61, 125-139.	2.7	18
23	Thermoelastic properties of microcracked polycrystals. Part I: Adequacy of Fourier-based methods for cracked elastic bodies. International Journal of Solids and Structures, 2018, 155, 248-256.	2.7	18
24	Random Structure Models for Homogenization and Fracture Statistics. , 2001, , 33-91.		16
25	3D Morphological Characterization of Phonic Insulation Fibrous Media. Advanced Engineering Materials, 2011, 13, 156-164.	3.5	15
26	Estimation of acoustic properties and of the representative volume element of random fibrous media. Journal of Applied Physics, 2013, 113, .	2.5	15
27	On the geodesic property of strain field patterns in elastoplastic composites. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 1217-1227.	2.1	13
28	DAMAGE SIMULATION IN HETEROGENEOUS MATERIALS FROM GEODESIC PROPAGATIONS. Engineering Computations, 1993, 10, 81-91.	1.4	12
29	Random Structures in Physics. , 2005, , 183-219.		12
30	Prediction of Effective Properties of Porous Carbon Electrodes from a Parametric 3D Random Morphological Model. Transport in Porous Media, 2017, 120, 141-165.	2.6	12
31	Thermoelastic properties of microcracked polycrystals. Part II: The case of jointed polycrystalline TATB. International Journal of Solids and Structures, 2018, 155, 257-274.	2.7	12
32	On image analysis and micromechanics. Revue De Physique AppliquÃ©e, 1988, 23, 549-556.	0.4	12
33	RANDOM STRUCTURE MODELS FOR COMPOSITE MEDIA AND FRACTURE STATISTICS. Series on Advances in Mathematics for Applied Sciences, 1994, , 239-289.	0.1	12
34	Stereological reconstruction of polycrystalline materials. Journal of Microscopy, 2015, 258, 190-199.	1.8	11
35	Power Laws Variance Scaling of Boolean Random Varieties. Methodology and Computing in Applied Probability, 2016, 18, 1065-1079.	1.2	11
36	Computational Homogenization ofÂArchitectured Materials. Springer Series in Materials Science, 2019, , 89-139.	0.6	5

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37	The thermoelastic response of cracked polycrystals with hexagonal symmetry. Philosophical Magazine, 2019, 99, 606-630.	1.6	5
38	Modelling of the microstructure of mesoporous alumina constrained by morphological simulation of nitrogen porosimetry. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 553, 378-396.	4.7	4
39	Towards crack paths simulations in media with a random fracture energy. International Journal of Solids and Structures, 2020, 184, 279-286.	2.7	4
40	Etude numérique et statistique du comportement d'un composite thermoplastique. Revue Des Composites Et Des Materiaux Avances, 2011, 21, 221-254.	0.6	4
41	A novel physisorption model based on mathematical morphology operators preserving exact pore morphology and connectivity. Microporous and Mesoporous Materials, 2022, 337, 111847.	4.4	4
42	Iterated Boolean random varieties and application to fracture statistics models. Applications of Mathematics, 2016, 61, 363-386.	0.9	2
43	SOME DENSE RANDOM PACKINGS GENERATED BY THE DEAD LEAVES MODEL. Image Analysis and Stereology, 2019, 38, 3.	0.9	2
44	Morphological Models. , 2018, , 1-12.		0
45	Morphological Models. , 2020, , 1754-1764.		0