

Luigi Ambrosio

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

178 papers	8,006 citations	51 h-index	81 g-index
187 ext. papers	8,834 ext. citations	4.4 avg, IF	6.3 L-index

#	Paper	IF	Citations
178	Transport equation and Cauchy problem for BV vector fields. <i>Inventiones Mathematicae</i> , 2004 , 158, 227-260	2.9	379
177	Novel superabsorbent cellulose-based hydrogels crosslinked with citric acid. <i>Journal of Applied Polymer Science</i> , 2008 , 110, 2453-2460	2.9	293
176	The effect of matrix composition of 3D constructs on embryonic stem cell differentiation. <i>Biomaterials</i> , 2005 , 26, 6194-207	15.6	210
175	A multi-functional scaffold for tissue regeneration: the need to engineer a tissue analogue. <i>Biomaterials</i> , 2007 , 28, 5093-9	15.6	200
174	A novel poloxamers/hyaluronic acid in situ forming hydrogel for drug delivery: rheological, mucoadhesive and in vitro release properties. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2008 , 70, 199-206	5.7	188
173	Metric measure spaces with Riemannian Ricci curvature bounded from below. <i>Duke Mathematical Journal</i> , 2014 , 163,	1.9	182
172	Bioactive scaffolds for bone and ligament tissue. <i>Expert Review of Medical Devices</i> , 2007 , 4, 405-18	3.5	180
171	Calculus and heat flow in metric measure spaces and applications to spaces with Ricci bounds from below. <i>Inventiones Mathematicae</i> , 2014 , 195, 289-391	2.2	178
170	Poly(lactic acid) fibre-reinforced polycaprolactone scaffolds for bone tissue engineering. <i>Biomaterials</i> , 2008 , 29, 3662-3670	15.6	154
169	Conductive PANi/PEGDA macroporous hydrogels for nerve regeneration. <i>Advanced Healthcare Materials</i> , 2013 , 2, 218-27	10.1	149
168	Rectifiable sets in metric and Banach spaces. <i>Mathematische Annalen</i> , 2000 , 318, 527-555	1	137
167	Currents in metric spaces. <i>Acta Mathematica</i> , 2000 , 185, 1-80	2.7	136
166	PCL microspheres based functional scaffolds by bottom-up approach with predefined microstructural properties and release profiles. <i>Biomaterials</i> , 2008 , 29, 4800-7	15.6	121
165	Metal-Based Antibacterial Substrates for Biomedical Applications. <i>Biomacromolecules</i> , 2015 , 16, 1873-856.9	5.9	117
164	Influence of gelatin cues in PCL electrospun membranes on nerve outgrowth. <i>Biomacromolecules</i> , 2010 , 11, 2238-46	6.9	111
163	New macroporous calcium phosphate glass ceramic for guided bone regeneration. <i>Biomaterials</i> , 2004 , 25, 4233-41	15.6	110
162	Bakry's curvature-dimension condition and Riemannian Ricci curvature bounds. <i>Annals of Probability</i> , 2015 , 43,	1.9	100

161	Additive manufacturing of wet-spun polymeric scaffolds for bone tissue engineering. <i>Biomedical Microdevices</i> , 2012 , 14, 1115-27	3.7	100
160	The role of reduced graphene oxide on chemical, mechanical and barrier properties of natural rubber composites. <i>Composites Science and Technology</i> , 2014 , 102, 74-81	8.6	98
159	Tissue engineering for total meniscal substitution: animal study in sheep model. <i>Tissue Engineering - Part A</i> , 2008 , 14, 1067-80	3.9	98
158	Towards the Design of 3D Fiber-Deposited Poly(ϵ -caprolactone)/Iron-Doped Hydroxyapatite Nanocomposite Magnetic Scaffolds for Bone Regeneration. <i>Journal of Biomedical Nanotechnology</i> , 2015 , 11, 1236-46	4	97
157	Layer-by-layer self-assembly of chitosan and poly(γ -glutamic acid) into polyelectrolyte complexes. <i>Biomacromolecules</i> , 2011 , 12, 4183-95	6.9	92
156	Tissue engineering for total meniscal substitution: animal study in sheep model--results at 12 months. <i>Tissue Engineering - Part A</i> , 2012 , 18, 1573-82	3.9	88
155	Tailoring assembly of reduced graphene oxide nanosheets to control gas barrier properties of natural rubber nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 2230-4	9.5	85
154	Collagen-low molecular weight hyaluronic acid semi-interpenetrating network loaded with gelatin microspheres for cell and growth factor delivery for nucleus pulposus regeneration. <i>Acta Biomaterialia</i> , 2015 , 20, 10-21	10.8	83
153	Some Fine Properties of Sets of Finite Perimeter in Ahlfors Regular Metric Measure Spaces. <i>Advances in Mathematics</i> , 2001 , 159, 51-67	1.3	76
152	Rheological and mechanical properties of acellular and cell-laden methacrylated gellan gum hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2013 , 101, 3438-46	5.4	74
151	A geometrical approach to monotone functions in (\mathbb{R}^n) . <i>Mathematische Zeitschrift</i> , 1999 , 230, 259-316	0.7	74
150	Riemannian Ricci curvature lower bounds in metric measure spaces with σ -finite measure. <i>Transactions of the American Mathematical Society</i> , 2015 , 367, 4661-4701	1	73
149	The role of hydroxyapatite as solid signal on performance of PCL porous scaffolds for bone tissue regeneration. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2008 , 86, 548-57	3.5	73
148	Hyaluronic Acid Based Hydrogels for Regenerative Medicine Applications. <i>BioMed Research International</i> , 2015 , 2015, 871218	3	69
147	A new class of bioactive and biodegradable soybean-based bone fillers. <i>Biomacromolecules</i> , 2007 , 8, 2706-11	4.1	66
146	Fine Properties of Sets of Finite Perimeter in Doubling Metric Measure Spaces. <i>Set-Valued and Variational Analysis</i> , 2002 , 10, 111-128		65
145	Viscoelastic properties of rabbit vocal folds after augmentation. <i>Otolaryngology - Head and Neck Surgery</i> , 2003 , 128, 401-6	5.5	65
144	A 3D analysis of mechanically stressed dentin-adhesive-composite interfaces using X-ray micro-CT. <i>Biomaterials</i> , 2005 , 26, 257-70	15.6	61

143	Histomorphometric, ultrastructural and microhardness evaluation of the osseointegration of a nanostructured titanium oxide coating by metal-organic chemical vapour deposition: an in vivo study. <i>Biomaterials</i> , 2004 , 25, 5583-91	15.6	60
142	Continuity equations and ODE flows with non-smooth velocity*. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 2014 , 144, 1191-1244	1	59
141	Injectable thermally responsive mucoadhesive gel for sustained protein delivery. <i>Biomacromolecules</i> , 2011 , 12, 28-33	6.9	59
140	Hybrid composite scaffolds prepared by sol-gel method for bone regeneration. <i>Composites Science and Technology</i> , 2010 , 70, 1861-1868	8.6	59
139	Structural and rheological characterization of hyaluronic acid-based scaffolds for adipose tissue engineering. <i>Biomaterials</i> , 2007 , 28, 4399-408	15.6	59
138	Structural and mechanical properties of UV-photo-cross-linked poly(N-vinyl-2-pyrrolidone) hydrogels. <i>Biomacromolecules</i> , 2008 , 9, 231-40	6.9	58
137	Calculus of Variations and Nonlinear Partial Differential Equations. <i>Lecture Notes in Mathematics</i> , 2008 ,	0.4	58
136	Rheological characterization of hyaluronic acid derivatives as injectable materials toward nucleus pulposus regeneration. <i>Journal of Biomaterials Applications</i> , 2012 , 26, 745-59	2.9	56
135	Systematic Analysis of Injectable Materials and 3D Rapid Prototyped Magnetic Scaffolds: From CNS Applications to Soft and Hard Tissue Repair/Regeneration. <i>Procedia Engineering</i> , 2013 , 59, 233-239		55
134	Tuning size scale and crystallinity of PCL electrospun fibres via solvent permittivity to address hMSC response. <i>Macromolecular Bioscience</i> , 2011 , 11, 1694-705	5.5	55
133	Dynamic-mechanical properties of a novel composite intervertebral disc prosthesis. <i>Journal of Materials Science: Materials in Medicine</i> , 2007 , 18, 2159-65	4.5	55
132	Equivalent definitions of BV space and of total variation on metric measure spaces. <i>Journal of Functional Analysis</i> , 2014 , 266, 4150-4188	1.4	54
131	3D fibre deposition and stereolithography techniques for the design of multifunctional nanocomposite magnetic scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2015 , 26, 250	4.5	53
130	A comparison of the performance of mono- and bi-component electrospun conduits in a rat sciatic model. <i>Biomaterials</i> , 2014 , 35, 8970-82	15.6	53
129	Soybean-based biomaterials: preparation, properties and tissue regeneration potential. <i>Expert Review of Medical Devices</i> , 2008 , 5, 349-58	3.5	51
128	A multi-component fiber-reinforced PHEMA-based hydrogel/HAPEX device for customized intervertebral disc prosthesis. <i>Journal of Biomaterials Applications</i> , 2011 , 25, 795-810	2.9	50
127	On flows associated to Sobolev vector fields in Wiener spaces: An approach à la DiPerna-Lions. <i>Journal of Functional Analysis</i> , 2009 , 256, 179-214	1.4	49
126	Electro-Active Polymers (EAPs): A Promising Route to Design Bio-Organic/Bioinspired Platforms with on Demand Functionalities. <i>Polymers</i> , 2016 , 8,	4.5	49

125	Borate cross-linked graphene oxide-chitosan as robust and high gas barrier films. <i>Nanoscale</i> , 2016 , 8, 10783-91	7.7	49
124	Optimization of fully aligned bioactive electrospun fibers for "in vitro" nerve guidance. <i>Journal of Materials Science: Materials in Medicine</i> , 2014 , 25, 2323-32	4.5	48
123	Novel polysaccharides-based viscoelastic formulations for ophthalmic surgery: rheological characterization. <i>Biomaterials</i> , 2006 , 27, 5134-42	15.6	48
122	In vitro mineralization and bone osteogenesis in poly(ϵ -caprolactone)/gelatin nanofibers. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 3008-19	5.4	46
121	Polymer-based platforms by electric field-assisted techniques for tissue engineering and cancer therapy. <i>Expert Review of Medical Devices</i> , 2015 , 12, 113-29	3.5	45
120	Bone regeneration potential of a soybean-based filler: experimental study in a rabbit cancellous bone defects. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 615-26	4.5	45
119	Mineralization behavior with mesenchymal stromal cells in a biomimetic hyaluronic acid-based scaffold. <i>Biomaterials</i> , 2010 , 31, 3986-96	15.6	45
118	Hydrogel-Based Platforms for the Regeneration of Osteochondral Tissue and Intervertebral Disc. <i>Polymers</i> , 2012 , 4, 1590-1612	4.5	44
117	Bicomponent electrospun scaffolds to design extracellular matrix tissue analogs. <i>Expert Review of Medical Devices</i> , 2016 , 13, 83-102	3.5	43
116	Well-posedness of Lagrangian flows and continuity equations in metric measure spaces. <i>Analysis and PDE</i> , 2014 , 7, 1179-1234	1.7	43
115	Nanocomposites for neurodegenerative diseases: hydrogel-nanoparticle combinations for a challenging drug delivery. <i>International Journal of Artificial Organs</i> , 2011 , 34, 1115-27	1.9	43
114	Regeneration of Achilles' tendon: the role of dynamic stimulation for enhanced cell proliferation and mechanical properties. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010 , 21, 1173-90	3.5	43
113	Influence of electrospun fiber mesh size on hMSC oxygen metabolism in 3D collagen matrices: experimental and theoretical evidences. <i>Biotechnology and Bioengineering</i> , 2011 , 108, 1965-76	4.9	41
112	The influence of hydroxyapatite particles on in vitro degradation behavior of poly epsilon-caprolactone-based composite scaffolds. <i>Tissue Engineering - Part A</i> , 2009 , 15, 3655-68	3.9	41
111	Effects of polymer amount and processing conditions on the in vitro behaviour of hybrid titanium dioxide/polycaprolactone composites. <i>Biomaterials</i> , 2007 , 28, 2801-9	15.6	41
110	Transport Equation and Cauchy Problem for Non-Smooth Vector Fields. <i>Lecture Notes in Mathematics</i> , 2008 , 1-41	0.4	40
109	Poly(lactic acid)/titanium dioxide nanocomposite films: Influence of processing procedure on dispersion of titanium dioxide and photocatalytic activity. <i>Polymer Composites</i> , 2011 , 32, 519-528	3	39
108	Response of intestinal cells and macrophages to an orally administered cellulose-PEG based polymer as a potential treatment for intractable edemas. <i>Biomaterials</i> , 2005 , 26, 4101-10	15.6	39

107	Ibuprofen-loaded poly(trimethylene carbonate-co-ε-caprolactone) electrospun fibres for nerve regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016 , 10, E154-66	4.4	38
106	Design of porous three-dimensional PDLLA/nano-hap composite scaffolds using stereolithography. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2012 , 10, 249-58	1.8	38
105	Effects on growth and osteogenic differentiation of mesenchymal stem cells by the strontium-added sol-gel hydroxyapatite gel materials. <i>Journal of Materials Science: Materials in Medicine</i> , 2015 , 26, 90	4.5	37
104	Self-hardening calcium deficient hydroxyapatite/gelatine foams for bone regeneration. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 863-9	4.5	37
103	Image processing and fractal box counting: user-assisted method for multi-scale porous scaffold characterization. <i>Journal of Materials Science: Materials in Medicine</i> , 2010 , 21, 3109-18	4.5	37
102	Traces and fine properties of a \mathbb{S}^2 class of vector fields and applications. <i>Annales De La Faculté Des Sciences De Toulouse</i> , 2005 , 14, 527-561	0.3	37
101	Induction of directional sprouting angiogenesis by matrix gradients. <i>Journal of Biomedical Materials Research - Part A</i> , 2007 , 80, 297-305	5.4	36
100	Behaviour of human mesenchymal stem cells on chemically synthesized HA-PCL scaffolds for hard tissue regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016 , 10, E147-54	4.4	35
99	On a class of first order Hamilton-Jacobi equations in metric spaces. <i>Journal of Differential Equations</i> , 2014 , 256, 2194-2245	2.1	33
98	Additive electrospraying: a route to process electrospun scaffolds for controlled molecular release. <i>Polymers for Advanced Technologies</i> , 2015 , 26, 1359-1369	3.2	33
97	Proliferation and osteoblastic differentiation of hMSCs on cellulose-based hydrogels. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2012 , 10, 302-7	1.8	33
96	A degradable soybean-based biomaterial used effectively as a bone filler in vivo in a rabbit. <i>Biomedical Materials (Bristol)</i> , 2010 , 5, 15008	3.5	33
95	The influence of Ni(II) on surface antigen expression in murine macrophages. <i>Biomaterials</i> , 2009 , 30, 1492-501	2.5	32
94	Gas-Barrier Hybrid Coatings by the Assembly of Novel Poly(vinyl alcohol) and Reduced Graphene Oxide Layers through Cross-Linking with Zirconium Adducts. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 22678-85	9.5	31
93	Syndiotactic Polystyrene Films with Sulfonated Amorphous Phase and Nanoporous Crystalline Phase. <i>Chemistry of Materials</i> , 2009 , 21, 3191-3196	9.6	31
92	Some New Well-Posedness Results for Continuity and Transport Equations, and Applications to the Chromatography System. <i>SIAM Journal on Mathematical Analysis</i> , 2009 , 41, 1890-1920	1.7	31
91	Spontaneous arrangement of a tumor targeting hyaluronic acid shell on irinotecan loaded PLGA nanoparticles. <i>Carbohydrate Polymers</i> , 2016 , 140, 400-7	10.3	28
90	Preparation and characterization of cellulose-based foams via microwave curing. <i>Interface Focus</i> , 2014 , 4, 20130053	3.9	28

89	MgCHA particles dispersion in porous PCL scaffolds: in vitro mineralization and in vivo bone formation. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2014 , 8, 291-303	4.4	27
88	Existence of Eulerian Solutions to the Semigeostrophic Equations in Physical Space: The 2-Dimensional Periodic Case. <i>Communications in Partial Differential Equations</i> , 2012 , 37, 2209-2227	1.6	27
87	Design of injectable organic-inorganic hybrid for bone tissue repair. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 2063-70	5.4	27
86	Cellulose-based porous scaffold for bone tissue engineering applications: Assessment of hMSC proliferation and differentiation. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 726-733	5.4	26
85	A PDE approach to a 2-dimensional matching problem. <i>Probability Theory and Related Fields</i> , 2019 , 173, 433-477	1.4	26
84	Bioactivity and bone healing properties of biomimetic porous composite scaffold: in vitro and in vivo studies. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 2932-41	5.4	25
83	Semiclassical limit of quantum dynamics with rough potentials and well-posedness of transport equations with measure initial data. <i>Communications on Pure and Applied Mathematics</i> , 2011 , 64, 1199-1242	2.5	24
82	Effect of microencapsulated phase change materials on the thermo-mechanical properties of poly(methyl-methacrylate) based biomaterials. <i>Journal of Materials Science: Materials in Medicine</i> , 2006 , 17, 1219-26	4.5	24
81	Galactose grafting on poly(ϵ -caprolactone) substrates for tissue engineering: a preliminary study. <i>Carbohydrate Research</i> , 2015 , 405, 39-46	2.9	23
80	Glucosamine grafting on poly(ϵ -caprolactone): a novel glycated polyester as a substrate for tissue engineering. <i>RSC Advances</i> , 2013 , 3, 6286	3.7	23
79	The biocompatibility of silver-containing Na ₂ O.CaO.2SiO ₂ glass prepared by sol-gel method: in vitro studies. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2010 , 92, 102-10	3.5	23
78	Mechanical and leakage behaviour of the dentin--adhesive interface. <i>Journal of Materials Science: Materials in Medicine</i> , 2004 , 15, 485-92	4.5	23
77	Monolithic polymeric aerogels with VOCs sorbent nanoporous crystalline and water sorbent amorphous phases. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 1318-26	9.5	21
76	Hydrogel-based nanocomposites and mesenchymal stem cells: a promising synergistic strategy for neurodegenerative disorders therapy. <i>Scientific World Journal, The</i> , 2013 , 2013, 270260	2.2	20
75	Rectifiability of Sets of Finite Perimeter in Carnot Groups: Existence of a Tangent Hyperplane. <i>Journal of Geometric Analysis</i> , 2009 , 19, 509-540	0.9	20
74	Technical features and criteria in designing fiber-reinforced composite materials: from the aerospace and aeronautical field to biomedical applications. <i>Journal of Applied Biomaterials and Biomechanics</i> , 2011 , 9, 151-63		20
73	Poly(2-hydroxyethyl methacrylate)/Poly(ϵ -caprolactone) Semi-Interpenetrating Polymer Networks. <i>Journal of Bioactive and Compatible Polymers</i> , 1988 , 3, 205-218	2	20
72	Existence and Uniqueness of Maximal Regular Flows for Non-smooth Vector Fields. <i>Archive for Rational Mechanics and Analysis</i> , 2015 , 218, 1043-1081	2.3	19

71	Effect of surface fluorination of TiO ₂ particles on photocatalytic activity of a hybrid multilayer coating obtained by sol-gel method. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 150-7	9.5	19
70	Biodegradable microparticles and nanoparticles by electrospraying techniques. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2012 , 10, 191-6	1.8	19
69	Osteogenic differentiation and mineralization in fibre-reinforced tubular scaffolds: theoretical study and experimental evidences. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 2201-12	4.1	19
68	Synthesis and characterization of soybean-based hydrogels with an intrinsic activity on cell differentiation. <i>Tissue Engineering - Part A</i> , 2012 , 18, 1932-9	3.9	19
67	A global existence result for the semigeostrophic equations in three dimensional convex domains. <i>Discrete and Continuous Dynamical Systems</i> , 2014 , 34, 1251-1268	2	19
66	Bio-safe processing of polylactic-co-caprolactone and polylactic acid blends to fabricate fibrous porous scaffolds for in vitro mesenchymal stem cells adhesion and proliferation. <i>Materials Science and Engineering C</i> , 2016 , 63, 512-21	8.3	18
65	Binary system thermodynamics to control pore architecture of PCL scaffold via temperature-driven phase separation process. <i>Journal of Biomaterials Applications</i> , 2012 , 27, 241-54	2.9	18
64	Calorimetric and thermomechanical properties of titanium-based orthodontic wires: DSC-DMA relationship to predict the elastic modulus. <i>Journal of Biomaterials Applications</i> , 2012 , 26, 829-44	2.9	18
63	In silico evaluation of a new composite disc substitute with a L3-L5 lumbar spine finite element model. <i>European Spine Journal</i> , 2012 , 21 Suppl 5, S675-87	2.7	18
62	Well-Posedness for a Class of Hyperbolic Systems of Conservation Laws in Several Space Dimensions. <i>Communications in Partial Differential Equations</i> , 2005 , 29, 1635-1651	1.6	18
61	Weak and strong convergence of derivations and stability of flows with respect to MGH convergence. <i>Journal of Functional Analysis</i> , 2017 , 272, 1182-1229	1.4	17
60	In vivo lamellar bone formation in fibre coated MgCHA-PCL-composite scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2012 , 23, 117-28	4.5	17
59	The role of the surface on microglia function: implications for central nervous system tissue engineering. <i>Journal of the Royal Society Interface</i> , 2015 , 12,	4.1	17
58	Scanning Small- and Wide-Angle X-ray Scattering Microscopy Selectively Probes HA Content in Gelatin/Hydroxyapatite Scaffolds for Osteochondral Defect Repair. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 8728-36	9.5	17
57	Ionic liquids as dynamic templating agents for sol-gel silica systems: synergistic anion and cation effect on the silica structured growth. <i>Journal of Sol-Gel Science and Technology</i> , 2015 , 76, 414-427	2.3	16
56	Design of electrosprayed non-spherical poly (L-lactide-co-glicolide) microdevices for sustained drug delivery. <i>Journal of Materials Science: Materials in Medicine</i> , 2014 , 25, 383-90	4.5	16
55	Existence of solutions for a class of hyperbolic systems of conservation laws in several space dimensions. <i>International Mathematics Research Notices</i> , 2003 , 2003, 2205	0.8	16
54	Needle-like ion-doped hydroxyapatite crystals influence osteogenic properties of PCL composite scaffolds. <i>Biomedical Materials (Bristol)</i> , 2016 , 11, 015018	3.5	15

53	Reverse engineering of mandible and prosthetic framework: Effect of titanium implants in conjunction with titanium milled full arch bridge prostheses on the biomechanics of the mandible. <i>Journal of Biomechanics</i> , 2014 , 47, 3825-9	2.9	15
52	Preparation and physico-chemical characterisation of microporous polysaccharidic hydrogels. <i>Journal of Materials Science: Materials in Medicine</i> , 2004 , 15, 463-7	4.5	15
51	Gaussian optimizers for entropic inequalities in quantum information. <i>Journal of Mathematical Physics</i> , 2018 , 59, 081101	1.2	15
50	Human skin-derived keratinocytes and fibroblasts co-cultured on 3D poly ϵ -caprolactone scaffold support in vitro HSC differentiation into T-lineage committed cells. <i>International Immunology</i> , 2013 , 25, 703-14	4.9	14
49	Short-time behavior of the heat kernel and Weyl law on $(\{\mathrm{RCD}\}^{*(K,N)})$ spaces. <i>Annals of Global Analysis and Geometry</i> , 2018 , 53, 97-119	0.6	13
48	Design of bioactive electrospun scaffolds for bone tissue engineering. <i>Journal of Applied Biomaterials and Functional Materials</i> , 2012 , 10, 223-8	1.8	13
47	On the chain rule for the divergence of BV-like vector fields: applications, partial results, open problems. <i>Contemporary Mathematics</i> , 2007 , 31-67	1.6	13
46	Stimuli-responsive chitosan/poly (N-isopropylacrylamide) semi-interpenetrating polymer networks: effect of pH and temperature on their rheological and swelling properties. <i>Journal of Materials Science: Materials in Medicine</i> , 2016 , 27, 109	4.5	13
45	Very weak notions of differentiability. <i>Proceedings of the Royal Society of Edinburgh Section A: Mathematics</i> , 2007 , 137, 447-455	1	12
44	Poly(Epsilon-lysine) dendrons tethered with phosphoserine increase mesenchymal stem cell differentiation potential of calcium phosphate gels. <i>Tissue Engineering - Part A</i> , 2014 , 20, 474-85	3.9	11
43	CALCULUS, HEAT FLOW AND CURVATURE-DIMENSION BOUNDS IN METRIC MEASURE SPACES 2019 ,		11
42	Optimal transport, Cheeger energies and contractivity of dynamic transport distances in extended spaces. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2016 , 137, 77-134	1.3	11
41	Tensorization of Cheeger energies, the space $H^{1,1}$ and the area formula for graphs. <i>Advances in Mathematics</i> , 2015 , 281, 1145-1177	1.3	10
40	Hydrogels for central nervous system therapeutic strategies. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015 , 229, 905-16	1.7	10
39	Large defect-tailored composite scaffolds for in vivo bone regeneration. <i>Journal of Biomaterials Applications</i> , 2014 , 29, 715-27	2.9	10
38	New stability results for sequences of metric measure spaces with uniform Ricci bounds from below 2017 , 1-51		10
37	Poly(ϵ -Caprolactone) Reinforced with Sol-Gel Synthesized Organic-Inorganic Hybrid Fillers as Composite Substrates for Tissue Engineering. <i>Journal of Applied Biomaterials and Biomechanics</i> , 2010 , 8, 146-152		10
36	Passage from Quantum to Classical Molecular Dynamics in the Presence of Coulomb Interactions. <i>Communications in Partial Differential Equations</i> , 2010 , 35, 1490-1515	1.6	10

35	Fractography analysis and fatigue strength of carbon fiber/RTM6 laminates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 3609-3614	5.3	10
34	Biomechanical effects of titanium implants with full arch bridge rehabilitation on a synthetic model of the human jaw. <i>Acta Biomaterialia</i> , 2007 , 3, 121-6	10.8	10
33	Improving surface and transport properties of macroporous hydrogels for bone regeneration. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 1095-105	5.4	9
32	Local spectral convergence in $RCD^*(K,N)$ spaces. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2018 , 177, 1-23	1.3	9
31	Well posedness of ODEs and continuity equations with nonsmooth vector fields, and applications. <i>Revista Matematica Complutense</i> , 2017 , 30, 427-450	0.8	9
30	Development and analysis of semi-interpenetrating polymer networks for brain injection in neurodegenerative disorders. <i>International Journal of Artificial Organs</i> , 2013 , 36, 762-74	1.9	9
29	Semicrystalline proton-conductive membranes with sulfonated amorphous phases. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8038-8044	6.7	9
28	DC calculus. <i>Mathematische Zeitschrift</i> , 2018 , 288, 1037-1080	0.7	9
27	Rigidity of the 1-Bakry-Erery Inequality and Sets of Finite Perimeter in RCD Spaces. <i>Geometric and Functional Analysis</i> , 2019 , 29, 949-1001	1.2	8
26	Linear extension operators between spaces of Lipschitz maps and optimal transport. <i>Journal Fur Die Reine Und Angewandte Mathematik</i> , 2020 , 2020, 1-21	1.2	8
25	Lecture notes on the DiPerna-Lions theory in abstract measure spaces. <i>Annales De La Faculté Des Sciences De Toulouse</i> , 2017 , 26, 729-766	0.3	8
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23	Heat Flow and Calculus on Metric Measure Spaces with Ricci Curvature Bounded Below: The Compact Case. <i>Springer INdAM Series</i> , 2013 , 63-115	0.4	7
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