

# Fionn Murtagh

## List of Publications by Year in Descending Order

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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.

90  
papers

4,468  
citations

25  
h-index

66  
g-index

106  
ext. papers

5,757  
ext. citations

3  
avg, IF

6.2  
L-index

#	Paper	IF	Citations
90	Hierarchy, Symmetry and Scale in Mathematics and Bi-Logic in Psychoanalysis, with Consequences. <i>European Review</i> , <b>2021</b> , 29, 197-209	0.3	
89	A diversified shared latent variable model for efficient image characteristics extraction and modelling. <i>Neurocomputing</i> , <b>2021</b> , 421, 244-259	5.4	0
88	A novel data clustering algorithm based on gravity center methodology. <i>Expert Systems With Applications</i> , <b>2020</b> , 156, 113435	7.8	12
87	Report on CLEF 2018. <i>ACM SIGIR Forum</i> , <b>2019</b> , 52, 72-82	0.9	1
86	A new data clustering algorithm based on critical distance methodology. <i>Expert Systems With Applications</i> , <b>2019</b> , 129, 296-310	7.8	16
85	Text Mining and Big Textual Data: Relevant Statistical Models. <i>Springer Proceedings in Mathematics and Statistics</i> , <b>2019</b> , 39-52	0.2	
84	The Geometry and Topology of Data and Information for Analytics of Processes and Behaviours: Building on Bourdieu and Addressing New Societal Challenges <b>2019</b> , 345-357		
83	Image super-resolution for outdoor digital forensics. Usability and legal aspects. <i>Computers in Industry</i> , <b>2018</b> , 98, 34-47	11.6	3
82	Qualitative Judgement of Research Impact: Domain Taxonomy as a Fundamental Framework for Judgement of the Quality of Research. <i>Journal of Classification</i> , <b>2018</b> , 35, 5-28	1.2	6
81	The Development of Data Science: Implications for Education, Employment, Research, and the Data Revolution for Sustainable Development. <i>Big Data and Cognitive Computing</i> , <b>2018</b> , 2, 14	3.5	4
80	A Machine Learning Framework for Predicting Dementia and Mild Cognitive Impairment <b>2018</b> ,		8
79	Algorithms for hierarchical clustering: an overview, II. <i>Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery</i> , <b>2017</b> , 7, e1219	6.9	80
78	Big Data Scaling Through Metric Mapping: Exploiting the Remarkable Simplicity of Very High Dimensional Spaces Using Correspondence Analysis. <i>Studies in Classification, Data Analysis, and Knowledge Organization</i> , <b>2017</b> , 295-306	0.2	
77	Semantic mapping of discourse and activity, using Habermas's theory of communicative action to analyze process. <i>Quality and Quantity</i> , <b>2016</b> , 50, 1675-1694	2.4	9
76	Sparse p-adic data coding for computationally efficient and effective big data analytics. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2016</b> , 8, 236-247	0.7	6
75	Formal foundations for the origins of human consciousness. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2016</b> , 8, 249-279	0.7	9
74	Hierarchical Matching and Regression with Application to Photometric Redshift Estimation. <i>Proceedings of the International Astronomical Union</i> , <b>2016</b> , 12, 145-155	0.1	

73	Overview of the CLEF 2016 Cultural Micro-blog Contextualization Workshop. <i>Lecture Notes in Computer Science</i> , <b>2016</b> , 371-378	0.9	7
72	Linear Storage and Potentially Constant Time Hierarchical Clustering Using the Baire Metric and Random Spanning Paths. <i>Studies in Classification, Data Analysis, and Knowledge Organization</i> , <b>2016</b> , 43-52	0.2	1
71	Direct Reading Algorithm for Hierarchical Clustering. <i>Electronic Notes in Discrete Mathematics</i> , <b>2016</b> , 56, 37-42	0.3	
70	The Classification Society's Bibliography Over Four Decades: History and Content Analysis. <i>Journal of Classification</i> , <b>2016</b> , 33, 6-29	1.2	5
69	Cognitive Informatics and Computational Intelligence. <i>International Journal of Software Science and Computational Intelligence</i> , <b>2015</b> , 7, 50-69	1.4	15
68	Random Projection Towards the Baire Metric for High Dimensional Clustering. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 424-431	0.9	5
67	The Structure of Argument: Semantic Mapping of US Supreme Court Cases. <i>Lecture Notes in Computer Science</i> , <b>2015</b> , 397-405	0.9	
66	Theme Articles on Classification and Geometric Data Analysis. <i>Journal of Classification</i> , <b>2014</b> , 31, 1-1	1.2	1
65	Pattern Recognition of Subconscious Underpinnings of Cognition using Ultrametric Topological Mapping of Thinking and Memory. <i>International Journal of Cognitive Informatics and Natural Intelligence</i> , <b>2014</b> , 8, 1-16	0.9	2
64	Ward's Hierarchical Agglomerative Clustering Method: Which Algorithms Implement Ward's Criterion?. <i>Journal of Classification</i> , <b>2014</b> , 31, 274-295	1.2	1468
63	Pattern recognition in mental processes: Determining vestiges of the subconscious through ultrametric component analysis <b>2014</b> ,		2
62	Mathematical Representations of Matte Blanco's Bi-Logic, based on Metric Space and Ultrametric or Hierarchical Topology: Towards Practical Application. <i>Language and Psychoanalysis</i> , <b>2014</b> , 3, 40-63	4	9
61	Thinking Ultrametrically, Thinking p-Adically. <i>Springer Optimization and Its Applications</i> , <b>2014</b> , 249-272	0.4	2
60	The new science of complex systems through ultrametric analysis: Application to search and discovery, to narrative and to thinking. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2013</b> , 5, 326-337	0.7	14
59	Computational Properties of Fiction Writing and Collaborative Work. <i>Lecture Notes in Computer Science</i> , <b>2013</b> , 369-379	0.9	2
58	Fast, linear time, m-adic hierarchical clustering for search and retrieval using the Baire metric, with linkages to generalized ultrametrics, hashing, formal concept analysis, and precision of data measurement. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2012</b> , 4, 46-56	0.7	5
57	Ultrametric model of mind, I: Review. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2012</b> , 4, 193-206	0.7	25
56	Ultrametric model of mind, II: Application to text content analysis. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2012</b> , 4, 207-221	0.7	22

55	Algorithms for hierarchical clustering: an overview. <i>Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery</i> , <b>2012</b> , 2, 86-97	6.9	357
54	Fast, Linear Time Hierarchical Clustering using the Baire Metric. <i>Journal of Classification</i> , <b>2012</b> , 29, 118-143	2.4	16
53	Hierarchical Clustering for Finding Symmetries and Other Patterns in Massive, High Dimensional Datasets. <i>Intelligent Systems Reference Library</i> , <b>2012</b> , 95-130	0.8	0
52	New methods of analysis of narrative and semantics in support of interactivity. <i>Entertainment Computing</i> , <b>2011</b> , 2, 115-121	1.9	4
51	Ultrametric Wavelet Regression of Multivariate Time Series: Application to Colombian Conflict Analysis. <i>IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans</i> , <b>2011</b> , 41, 254-263	2.4	6
50	Tag Clouds for Displaying Semantics: The Case of Filmscripts. <i>Information Visualization</i> , <b>2010</b> , 9, 253-262	2.4	4
49	Fast Hierarchical Clustering from the Baire Distance. <i>Studies in Classification, Data Analysis, and Knowledge Organization</i> , <b>2010</b> , 235-243	0.2	4
48	Scale-Based Gaussian Coverings: Combining Intra and Inter Mixture Models in Image Segmentation. <i>Entropy</i> , <b>2009</b> , 11, 513-528	2.8	3
47	SedLog: A shareware program for drawing graphic logs and log data manipulation. <i>Computers and Geosciences</i> , <b>2009</b> , 35, 2151-2159	4.5	24
46	Biologically Inspired Tensor Features. <i>Cognitive Computation</i> , <b>2009</b> , 1, 327-341	4.4	17
45	The Remarkable Simplicity of Very High Dimensional Data: Application of Model-Based Clustering. <i>Journal of Classification</i> , <b>2009</b> , 26, 249-277	1.2	25
44	The structure of narrative: The case of film scripts. <i>Pattern Recognition</i> , <b>2009</b> , 42, 302-312	7.7	31
43	From data to the p-adic or ultrametric model. <i>P-Adic Numbers, Ultrametric Analysis, and Applications</i> , <b>2009</b> , 1, 58-68	0.7	6
42	Symmetry in data mining and analysis: A unifying view based on hierarchy. <i>Proceedings of the Steklov Institute of Mathematics</i> , <b>2009</b> , 265, 177-198	0.5	17
41	A Study of the Neighborhood Counting Similarity. <i>IEEE Transactions on Knowledge and Data Engineering</i> , <b>2008</b> , 20, 449-461	4.2	7
40	Perceptual simplification for model-based binaural room auralisation. <i>Applied Acoustics</i> , <b>2008</b> , 69, 715-727	3.1	5
39	Wavelet and curvelet moments for image classification: Application to aggregate mixture grading. <i>Pattern Recognition Letters</i> , <b>2008</b> , 29, 1557-1564	4.7	46
38	Hierarchical Clustering of Massive, High Dimensional Data Sets by Exploiting Ultrametric Embedding. <i>SIAM Journal of Scientific Computing</i> , <b>2008</b> , 30, 707-730	2.6	27

37	The undecimated wavelet decomposition and its reconstruction. <i>IEEE Transactions on Image Processing</i> , <b>2007</b> , 16, 297-309	8.7	273
36	The Haar Wavelet Transform of a Dendrogram. <i>Journal of Classification</i> , <b>2007</b> , 24, 3-32	1.2	42
35	From Data to the Physics Using Ultrametrics: New Results in High Dimensional Data Analysis. <i>AIP Conference Proceedings</i> , <b>2006</b> ,	0	4
34	Bayesian inference for multiband image segmentation via model-based cluster trees. <i>Image and Vision Computing</i> , <b>2005</b> , 23, 587-596	3.7	35
33	Grading of construction aggregate through machine vision: Results and prospects. <i>Computers in Industry</i> , <b>2005</b> , 56, 905-917	11.6	5
32	A machine vision approach to the grading of crushed aggregate. <i>Machine Vision and Applications</i> , <b>2005</b> , 16, 229-235	2.8	10
31	On Ultrametricity, Data Coding, and Computation. <i>Journal of Classification</i> , <b>2004</b> , 21, 167-184	1.2	63
30	Multiband segmentation based on a hierarchical Markov model. <i>Pattern Recognition</i> , <b>2004</b> , 37, 2337-2347	7.7	19
29	Thinking Ultrametrically <b>2004</b> , 3-14		6
28	Wavelets and curvelets for image deconvolution: a combined approach. <i>Signal Processing</i> , <b>2003</b> , 83, 2279-2283	4.4	114
27	A wavelet, fourier, and PCA data analysis pipeline: application to distinguishing mixtures of liquids. <i>Journal of Chemical Information and Computer Sciences</i> , <b>2003</b> , 43, 587-94		5
26	Gray and color image contrast enhancement by the curvelet transform. <i>IEEE Transactions on Image Processing</i> , <b>2003</b> , 12, 706-17	8.7	302
25	Astronomical Image and Data Analysis. <i>Astronomy and Astrophysics Library</i> , <b>2002</b> ,	0.2	102
24	Web traffic demand forecasting using wavelet-based multiscale decomposition. <i>International Journal of Intelligent Systems</i> , <b>2001</b> , 16, 215-236	8.4	18
23	Maps of information spaces: Assessments from astronomy. <i>Journal of the Association for Information Science and Technology</i> , <b>2000</b> , 51, 1081-1089		8
22	Clustering of XML documents. <i>Computer Physics Communications</i> , <b>2000</b> , 127, 215-227	4.2	29
21	New Image Modeling Approaches. <i>Surveys in Geophysics</i> , <b>2000</b> , 21, 229-239	7.6	
20	Spatial representation of economic and financial measures used in agriculture via wavelet analysis. <i>International Journal of Geographical Information Science</i> , <b>1999</b> , 13, 557-576	4.1	3

19	Very-high-quality image compression based on noise modeling. <i>International Journal of Imaging Systems and Technology</i> , <b>1998</b> , 9, 38-45	2.5	10
18	Wedding the Wavelet Transform and Multivariate Data Analysis. <i>Journal of Classification</i> , <b>1998</b> , 15, 161-183		10
17	Pattern clustering based on noise modeling in wavelet space. <i>Pattern Recognition</i> , <b>1998</b> , 31, 847-855	7.7	15
16	Automatic Noise Estimation from the Multiresolution Support. <i>Publications of the Astronomical Society of the Pacific</i> , <b>1998</b> , 110, 193-199	5	73
15	Three Types of Gamma-Ray Bursts. <i>Astrophysical Journal</i> , <b>1998</b> , 508, 314-327	4.7	214
14	Combining Neural Network Forecasts on Wavelet-transformed Time Series. <i>Connection Science</i> , <b>1997</b> , 9, 113-122	2.8	63
13	Fuzzy astronomical seeing nowcasts with a dynamical and recurrent connectionist network. <i>Neurocomputing</i> , <b>1996</b> , 13, 359-373	5.4	2
12	Astronomical Image Compression Based on Noise Suppression. <i>Publications of the Astronomical Society of the Pacific</i> , <b>1996</b> , 108, 446	5	26
11	Dynamical recurrent neural networks--towards environmental time series prediction. <i>International Journal of Neural Systems</i> , <b>1995</b> , 6, 145-70	6.2	25
10	Multiresolution in astronomical image processing: A general framework. <i>International Journal of Imaging Systems and Technology</i> , <b>1995</b> , 6, 332-338	2.5	6
9	Nowcasting Astronomical Seeing: Towards an Operational Approach. <i>Publications of the Astronomical Society of the Pacific</i> , <b>1995</b> , 107, 702	5	5
8	Nowcasting astronomical seeing - A study of ESO La Silla and Paranal. <i>Publications of the Astronomical Society of the Pacific</i> , <b>1993</b> , 105, 932	5	6
7	Public software for the astronomer - an overview. <i>Publications of the Astronomical Society of the Pacific</i> , <b>1992</b> , 104, 574	5	41
6	Multilayer perceptrons for classification and regression. <i>Neurocomputing</i> , <b>1991</b> , 2, 183-197	5.4	184
5	Multivariate Data Analysis. <i>Astrophysics and Space Science Library</i> , <b>1987</b> ,	0.3	186
4	An Analysis of the Relationships among Computation-Related Skills Using a Hierarchical-Clustering Technique. <i>Journal for Research in Mathematics Education</i> , <b>1986</b> , 17, 112-129	1.2	
3	Counting dendrograms: A survey. <i>Discrete Applied Mathematics</i> , <b>1984</b> , 7, 191-199	1	43
2	Data Science Foundations		14

1 Correspondence Analysis and Data Coding with Java and R

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