

# Chai Quek

## List of Publications by Year in descending order

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157  
papers

4,458  
citations

94433

37  
h-index

128289

60  
g-index

158  
all docs

158  
docs citations

158  
times ranked

3374  
citing authors

#	ARTICLE	IF	CITATIONS
1	End-to-End Hierarchical Reinforcement Learning With Integrated Subgoal Discovery. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 7778-7790.	11.3	7
2	Dynamic portfolio rebalancing through reinforcement learning. Neural Computing and Applications, 2022, 34, 7125-7139.	5.6	15
3	RS-HeRR: a rough set-based Hebbian rule reduction neuro-fuzzy system. Neural Computing and Applications, 2021, 33, 1123-1137.	5.6	4
4	seMLP: Self-evolving Multi-layer Perceptron in Stock Trading Decision Making. SN Computer Science, 2021, 2, 1.	3.6	0
5	Motivation detection using EEG signal analysis by residual-in-residual convolutional neural network. Expert Systems With Applications, 2021, 184, 115548.	7.6	8
6	IT2-GSETSK: An evolving interval Type-II TSK fuzzy neural system for online modeling of noisy data. Neurocomputing, 2020, 407, 1-11.	5.9	9
7	Are Object Detection Assessment Criteria Ready for Maritime Computer Vision?. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 5295-5304.	8.0	15
8	A Deep Hybrid Fuzzy Neural Hammerstein-Wiener Network for Stock Price Prediction. , 2020, , .		3
9	Object Detection in a Maritime Environment: Performance Evaluation of Background Subtraction Methods. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 1787-1802.	8.0	48
10	The applicability of Generic Self-Evolving Takagi-Sugeno-Kang neuro-fuzzy model in modeling rainfall-runoff and river routing. Hydrology Research, 2019, 50, 991-1001.	2.7	9
11	An iterative cross-subject negative-unlabeled learning algorithm for quantifying passive fatigue. Journal of Neural Engineering, 2019, 16, 056013.	3.5	18
12	Sentiment analysis using EEG activities for suicidology. Expert Systems With Applications, 2018, 103, 206-217.	7.6	19
13	An interpretable neural fuzzy inference system for predictions of underpricing in initial public offerings. Neurocomputing, 2018, 319, 102-117.	5.9	12
14	Rainfall-runoff modelling using a self-reliant fuzzy inference network with flexible structure. Journal of Hydrology, 2018, 564, 1179-1193.	5.4	26
15	Rainfall-runoff Modelling in a Semi-urbanized Catchment using Self-adaptive Fuzzy Inference Network. , 2018, , .		1
16	Video Processing From Electro-Optical Sensors for Object Detection and Tracking in a Maritime Environment: A Survey. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 1993-2016.	8.0	246
17	A fully-online Neuro-Fuzzy model for flow forecasting in basins with limited data. Journal of Hydrology, 2017, 545, 424-435.	5.4	47
18	Correlation of reaction time and EEG log bandpower from dry frontal electrodes in a passive fatigue driving simulation experiment. , 2017, 2017, 2482-2485.		9

#	ARTICLE	IF	CITATIONS
19	Leveraging the trade-off between accuracy and interpretability in a hybrid intelligent system. , 2017, , .		0
20	MuSCoWERT: multi-scale consistence of weighted edge Radon transform for horizon detection in maritime images. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 2491.	1.5	23
21	MSCM-LiFe: Multi-scale cross modal linear feature for horizon detection in maritime images. , 2016, , .		19
22	Bank failure prediction using an accurate and interpretable neural fuzzy inference system. AI Communications, 2016, 29, 477-495.	1.2	9
23	ieRSPOP: A novel incremental rough set-based pseudo outer-product with ensemble learning. Applied Soft Computing Journal, 2016, 46, 170-186.	7.2	26
24	Rough-fuzzy rule interpolation. Information Sciences, 2016, 351, 1-17.	6.9	44
25	Neural network modelling of the influence of channelopathies on reflex visual attention. Cognitive Neurodynamics, 2016, 10, 49-72.	4.0	7
26	Trading model: Self reorganizing Fuzzy Associative Machine - forecasted MACD-Histogram (SeroFAM-fMACDH). , 2015, , .		2
27	An analysis on driver drowsiness based on reaction time and EEG band power. , 2015, 2015, 7982-5.		11
28	GSETSK: a generic self-evolving TSK fuzzy neural network with a novel Hebbian-based rule reduction approach. Applied Soft Computing Journal, 2015, 35, 29-42.	7.2	29
29	Dynamic screening of autistic children in various mental states using pattern of connectivity between brain regions. Applied Soft Computing Journal, 2015, 32, 335-346.	7.2	6
30	FIE-FCMAC: A novel fuzzy cerebellum model articulation controller (FCMAC) using fuzzy interpolation and extrapolation technique. , 2015, , .		1
31	Backward Fuzzy Rule Interpolation. IEEE Transactions on Fuzzy Systems, 2014, 22, 1682-1698.	9.8	62
32	Mutual information-based optimization of sparse spatio-spectral filters in brain-computer interface. Neural Computing and Applications, 2014, 25, 625-634.	5.6	14
33	DEB: Definite Error Bounded Tangent Estimator for Digital Curves. IEEE Transactions on Image Processing, 2014, 23, 4297-4310.	9.8	9
34	Ovarian cancer diagnosis using a hybrid intelligent system with simple yet convincing rules. Applied Soft Computing Journal, 2014, 20, 25-39.	7.2	14
35	ERNN: A Biologically Inspired Feedforward Neural Network to Discriminate Emotion From EEG Signal. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 609-620.	11.3	82
36	Runoff forecasting using a Takagi-Sugeno neuro-fuzzy model with online learning. Journal of Hydrology, 2013, 488, 17-32.	5.4	55

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37	EEG Data Space Adaptation to Reduce Intersession Nonstationarity in Brain-Computer Interface. <i>Neural Computation</i> , 2013, 25, 2146-2171.	2.2	74
38	Fuzzy interpolation and extrapolation using shift ratio and overall weight measurement based on areas of fuzzy sets. , 2013, , .		3
39	Backward fuzzy rule interpolation with multiple missing values. , 2013, , .		13
40	Towards dynamic fuzzy rule interpolation. , 2013, , .		31
41	Comparison of error bounds for non-parametric dominant point detection. , 2013, , .		0
42	ElliFit: An unconstrained, non-iterative, least squares based geometric Ellipse Fitting method. <i>Pattern Recognition</i> , 2013, 46, 1449-1465.	8.1	131
43	Optimizing Spatial Filters by Minimizing Within-Class Dissimilarities in Electroencephalogram-Based Brain-Computer Interface. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2013, 24, 610-619.	11.3	112
44	Scale and move transformation-based fuzzy rule interpolation with interval type-2 fuzzy sets. , 2013, , .		8
45	A Novel Fuzzy Associative Memory Architecture for Stock Market Prediction and Trading. , 2013, , 87-104.		0
46	A Precise Ellipse Fitting Method for Noisy Data. <i>Lecture Notes in Computer Science</i> , 2012, , 253-260.	1.3	3
47	Robust EEG channel selection across sessions in brain-computer interface involving stroke patients. , 2012, , .		17
48	A novel framework for making dominant point detection methods non-parametric. <i>Image and Vision Computing</i> , 2012, 30, 843-859.	4.5	70
49	Fuzzy associative learning of feature dependency for time series forecasting. , 2012, , .		0
50	Self-reorganizing TSK fuzzy inference system with BCM theory of meta-plasticity. , 2012, , .		1
51	Traffic prediction using a Generic Self-Evolving Takagi-Sugeno-Kang (GSETSK) fuzzy neural network. , 2012, , .		2
52	Multi-frequency band common spatial pattern with sparse optimization in Brain-Computer Interface. , 2012, , .		4
53	Traffic modeling and identification using a Self-adaptive Fuzzy Inference Network. , 2012, , .		1
54	Omitting the intra-session calibration in EEG-based brain computer interface used for stroke rehabilitation. , 2012, 2012, 4124-7.		13

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55	Cultural dependency analysis for understanding speech emotion. Expert Systems With Applications, 2012, 39, 5115-5133.	7.6	60
56	ARPOP: An Appetitive Reward-Based Pseudo-Outer-Product Neural Fuzzy Inference System Inspired From the Operant Conditioning of Feeding Behavior in Aplysia. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 317-329.	11.3	15
57	A Non-heuristic Dominant Point Detection Based on Suppression of Break Points. Lecture Notes in Computer Science, 2012, , 269-276.	1.3	1
58	Evolving ensemble of fuzzy models. , 2011, , .		2
59	A parameter independent line fitting method. , 2011, , .		19
60	A Brain-Computer Interface for classifying EEG correlates of chronic mental stress. , 2011, , .		69
61	SaFIN: A Self-Adaptive Fuzzy Inference Network. IEEE Transactions on Neural Networks, 2011, 22, 1928-1940.	4.2	50
62	Optimizing the Channel Selection and Classification Accuracy in EEG-Based BCI. IEEE Transactions on Biomedical Engineering, 2011, 58, 1865-1873.	4.2	333
63	RFCMAC: A novel reduced localized neuro-fuzzy system approach to knowledge extraction. Expert Systems With Applications, 2011, 38, 12066-12084.	7.6	10
64	Financial volatility trading using a self-organising neural-fuzzy semantic network and option straddle-based approach. Expert Systems With Applications, 2011, 38, 4668-4688.	7.6	42
65	Stock trading with cycles: A financial application of ANFIS and reinforcement learning. Expert Systems With Applications, 2011, 38, 4741-4755.	7.6	62
66	FAPOP: Feature analysis enhanced pseudo outer-product fuzzy rule identification system. , 2011, , .		1
67	A Novel Fuzzy Associative Memory Architecture for Stock Market Prediction and Trading. International Journal of Fuzzy System Applications, 2011, 1, 61-78.	0.7	3
68	EpiList II: Closing the Loop in the Development of Generic Cognitive Skills. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2010, 40, 676-685.	2.9	7
69	A novel brain-inspired neural cognitive approach to SARS thermal image analysis. Expert Systems With Applications, 2010, 37, 3040-3054.	7.6	16
70	A novel application of a neuro-fuzzy computational technique in event-based rainfall runoff modeling. Expert Systems With Applications, 2010, 37, 7456-7468.	7.6	113
71	A synergy of econometrics and computational methods (GARCH-RNFS) for volatility forecasting. , 2010, , .		17
72	Time series forecasting with appetitive reward-based pseudo-outer-product fuzzy neural network. , 2010, , .		0

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73	An evolving Mamdani-Takagi-Sugeno based neural-fuzzy inference system with improved interpretability-accuracy. , 2010, , .		2
74	Brain-Inspired Evolving Neuro-Fuzzy System for Financial Forecasting and Trading of the S&P500 Index. Lecture Notes in Computer Science, 2010, , 601-607.	1.3	1
75	Stock price prediction using Generic Self-Evolving Takagi-Sugeno-Kang (GSETSK) fuzzy neural network. , 2010, , .		12
76	A BCM Theory of Meta-Plasticity for Online Self-Reorganizing Fuzzy-Associative Learning. IEEE Transactions on Neural Networks, 2010, 21, 985-1003.	4.2	33
77	eFSM”A Novel Online Neural-Fuzzy Semantic Memory Model. IEEE Transactions on Neural Networks, 2010, 21, 136-157.	4.2	51
78	A Decision Making System Based on Complementary Learning. Intelligent Systems Reference Library, 2010, , 163-179.	1.2	1
79	An Evolving Type-2 Neural Fuzzy Inference System. Lecture Notes in Computer Science, 2010, , 535-546.	1.3	4
80	Enhancing Decision Support System with Neural Fuzzy Model and Simple Model Visualizations. Intelligent Systems Reference Library, 2010, , 85-116.	1.2	5
81	Reinforcement Based U-Tree: A Novel Approach for Solving POMDP. Intelligent Systems Reference Library, 2010, , 205-232.	1.2	1
82	Online Self-reorganizing Neuro-fuzzy Reasoning in Interval-Forecasting for Financial Time-Series. Lecture Notes in Computer Science, 2010, , 523-534.	1.3	0
83	Learning from an ensemble of Receptive Fields. , 2009, , .		0
84	Driving Profile Modeling and Recognition Based on Soft Computing Approach. IEEE Transactions on Neural Networks, 2009, 20, 563-582.	4.2	83
85	A hypothalamic and piagetian fuzzy inference system: HtPFIS. , 2009, , .		0
86	A Novel Blood Glucose Regulation Using TSK <sup>{0}</sup> -FCMAC: A Fuzzy CMAC Based on the Zero-Ordered TSK Fuzzy Inference Scheme. IEEE Transactions on Neural Networks, 2009, 20, 856-871.	4.2	36
87	Financial Market Trading System With a Hierarchical Coevolutionary Fuzzy Predictive Model. IEEE Transactions on Evolutionary Computation, 2009, 13, 56-70.	10.0	39
88	A novel neuro-cognitive approach to modeling traffic control and flow based on fuzzy neural techniques. Expert Systems With Applications, 2009, 36, 4788-4803.	7.6	19
89	A novel self-organizing fuzzy rule-based system for modelling traffic flow behaviour. Expert Systems With Applications, 2009, 36, 12167-12178.	7.6	28
90	HebbR2-Taffic: A novel application of neuro-fuzzy network for visual based traffic monitoring system. Expert Systems With Applications, 2009, 36, 6343-6356.	7.6	24

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91	RSFCMAC: A novel rough set&#x2013;based rule reduction approach for fuzzy CMAC architecture with yager-inference-scheme. , 2009, , .		0
92	Fuzzy Associative Conjoined Maps Network. IEEE Transactions on Neural Networks, 2009, 20, 1302-1319.	4.2	11
93	R-POPTVR: A Novel Reinforcement-Based POPTVR Fuzzy Neural Network for Pattern Classification. IEEE Transactions on Neural Networks, 2009, 20, 1740-1755.	4.2	20
94	ACPOP: Ambiguity correction-based pseudo-outer-product fuzzy rule identification algorithm. , 2009, , .		4
95	A hybrid approach for breast tissue data classification. , 2009, , .		3
96	HyFIS-Yager-gDIC: A Self-organizing Hybrid Neural Fuzzy Inference System Realizing Yager Inference. Lecture Notes in Computer Science, 2009, , 1137-1145.	1.3	2
97	Financial Market Trading System With a Hierarchical Coevolutionary Fuzzy Predictive Model. IEEE Transactions on Evolutionary Computation, 2009, , .	10.0	0
98	A nature inspired Ying&#x2013;Yang approach for intelligent decision support in bank solvency analysis. Expert Systems With Applications, 2008, 34, 2576-2587.	7.6	12
99	A novel recurrent neural network-based prediction system for option trading and hedging. Applied Intelligence, 2008, 29, 138-151.	5.3	24
100	Maximizing winning trades using a novel RSPOP fuzzy neural network intelligent stock trading system. Applied Intelligence, 2008, 29, 116-128.	5.3	21
101	FCMAC-EWS: A bank failure early warning system based on a novel localized pattern learning and semantically associative fuzzy neural network. Expert Systems With Applications, 2008, 34, 989-1003.	7.6	50
102	GenSoFNN-Yager: A novel brain-inspired generic self-organizing neuro-fuzzy system realizing Yager inference. Expert Systems With Applications, 2008, 35, 1825-1840.	7.6	20
103	Ovarian cancer diagnosis with complementary learning fuzzy neural network. Artificial Intelligence in Medicine, 2008, 43, 207-222.	6.5	44
104	A Novel Biologically and Psychologically Inspired Fuzzy Decision Support System: Hierarchical Complementary Learning. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2008, 5, 67-79.	3.0	11
105	DCT-Yager FNN: A Novel Yager-Based Fuzzy Neural Network With the Discrete Clustering Technique. IEEE Transactions on Neural Networks, 2008, 19, 625-644.	4.2	17
106	Application of a hierarchical coevolutionary fuzzy system for financial prediction and trading. , 2008, , .		2
107	Adaptive control of infusion pump for Type-I diabetes control using a self-tuning regulator. , 2008, , .		7
108	A memory-based reinforcement learning algorithm for partially observable Markovian decision processes. , 2008, , .		2

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109	Learning associations of conjoined fuzzy sets for data prediction. , 2008, , .		0
110	PSECMAC: A Novel Self-Organizing Multiresolution Associative Memory Architecture. IEEE Transactions on Neural Networks, 2008, 19, 689-712.	4.2	21
111	HiCEFS &#x2014; A hierarchical coevolutionary approach for the dynamic generation of fuzzy system. , 2007, , .		1
112	A Novel Generic Hebbian Ordering-Based Fuzzy Rule Base Reduction Approach to Mamdani Neuro-Fuzzy System. Neural Computation, 2007, 19, 1656-1680.	2.2	62
113	Hierarchically Clustered Adaptive Quantization CMAC and Its Learning Convergence. IEEE Transactions on Neural Networks, 2007, 18, 1658-1682.	4.2	23
114	A foreign exchange portfolio management mechanism based on fuzzy neural networks. , 2007, , .		7
115	EpiList: An Intelligent Tutoring System Shell for Implicit Development of Generic Cognitive Skills That Support Bottom-Up Knowledge Construction. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2007, 37, 58-71.	2.9	11
116	Speech emotion recognition using auditory cortex. , 2007, , .		1
117	MCES: A Novel Monte Carlo Evaluative Selection Approach for Objective Feature Selections. IEEE Transactions on Neural Networks, 2007, 18, 431-448.	4.2	36
118	MNFS-FPM: A novel memetic neuro-fuzzy system based financial portfolio management. , 2007, , .		6
119	Type-2 GA-TSK fuzzy neural network. , 2007, , .		9
120	A novel cognitive interpretation of breast cancer thermography with complementary learning fuzzy neural memory structure. Expert Systems With Applications, 2007, 33, 652-666.	7.6	100
121	BIOLOGICAL BRAIN-INSPIRED GENETIC COMPLEMENTARY LEARNING FOR STOCK MARKET AND BANK FAILURE PREDICTION. Computational Intelligence, 2007, 23, 236-261.	3.2	45
122	PREDICTING THE IMPACT OF ANTICIPATORY ACTION ON U.S. STOCK MARKET?AN EVENT STUDY USING ANFIS (A NEURAL FUZZY MODEL). Computational Intelligence, 2007, 23, 117-141.	3.2	19
123	RLDDE: A novel reinforcement learning-based dimension and delay estimator for neural networks in time series prediction. Neurocomputing, 2007, 70, 1331-1341.	5.9	23
124	Stock Trading Using RSPOP: A Novel Rough Set-Based Neuro-Fuzzy Approach. IEEE Transactions on Neural Networks, 2006, 17, 1301-1315.	4.2	105
125	FITSK: online local learning with generic fuzzy input Takagi-Sugeno-Kang fuzzy framework for nonlinear system estimation. IEEE Transactions on Systems, Man, and Cybernetics, 2006, 36, 166-178.	5.0	48
126	POP-TRAFFIC: A Novel Fuzzy Neural Approach to Road Traffic Analysis and Prediction. IEEE Transactions on Intelligent Transportation Systems, 2006, 7, 133-146.	8.0	167



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127	Maximum reward reinforcement learning: A non-cumulative reward criterion. Expert Systems With Applications, 2006, 31, 351-359.	7.6	18
128	Structure and learning algorithms of a nonsingleton input fuzzy neural network based on the approximate analogical reasoning schema. Fuzzy Sets and Systems, 2006, 157, 1814-1831.	2.7	24
129	Rough set-based neuro-fuzzy system. , 2006, , .		10
130	A Modified Generalized RBF Model with EM-based Learning Algorithm for Medical Applications. , 2006, , .		1
131	FCMAC-Yager: A Novel Yager-Inference-Scheme-Based Fuzzy CMAC. IEEE Transactions on Neural Networks, 2006, 17, 1394-1410.	4.2	51
132	Digital Modulation Classification using Fuzzy Neural Networks. Studies in Computational Intelligence, 2006, , 101-116.	0.9	2
133	Reinforcement learning combined with a fuzzy adaptive learning control network (FALCON-R) for pattern classification. Pattern Recognition, 2005, 38, 513-526.	8.1	17
134	POP-Yager: A novel self-organizing fuzzy neural network based on the Yager inference. Expert Systems With Applications, 2005, 29, 229-242.	7.6	31
135	GA-TSKfnn: Parameters tuning of fuzzy neural network using genetic algorithms. Expert Systems With Applications, 2005, 29, 769-781.	7.6	99
136	GenSo-FDSS: a neural-fuzzy decision support system for pediatric ALL cancer subtype identification using gene expression data. Artificial Intelligence in Medicine, 2005, 33, 61-88.	6.5	53
137	RSPOP: Rough Set-Based Pseudo Outer-Product Fuzzy Rule Identification Algorithm. Neural Computation, 2005, 17, 205-243.	2.2	99
138	Novel Self-Organizing Takagi Sugeno Kang Fuzzy Neural Networks Based on ART-like Clustering. Neural Processing Letters, 2004, 20, 39-51.	3.2	35
139	CMAC with Fuzzy Logic Reasoning. Lecture Notes in Computer Science, 2004, , 898-903.	1.3	4
140	Popfnn-cri(s): pseudo outer product based fuzzy neural network using the compositional rule of inference and singleton fuzzifier. IEEE Transactions on Systems, Man, and Cybernetics, 2003, 33, 838-849.	5.0	92
141	GenSoFNN: a generic self-organizing fuzzy neural network. IEEE Transactions on Neural Networks, 2002, 13, 1075-1086.	4.2	153
142	Antiforgery: a novel pseudo-outer product based fuzzy neural network driven signature verification system. Pattern Recognition Letters, 2002, 23, 1795-1816.	4.2	47
143	A novel approach to the derivation of fuzzy membership functions using the Falcon-MART architecture. Pattern Recognition Letters, 2001, 22, 941-958.	4.2	44
144	Fuzzylot: a novel self-organising fuzzy-neural rule-based pilot system for automated vehicles. Neural Networks, 2001, 14, 1099-1112.	5.9	58

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145	<title>POP-Yager: a novel self-organizing fuzzy neural network based on the Yager inference</title>. , 2000, , .		2
146	<title>ASE-CMAC for speech enhancement in a vehicular environment</title>. , 2000, , .		2
147	Improved MCMAC with momentum, neighborhood, and averaged trapezoidal output. IEEE Transactions on Systems, Man, and Cybernetics, 2000, 30, 491-500.	5.0	23
148	DCBAM: A discrete chainable bidirectional associative memory. Pattern Recognition Letters, 1996, 17, 985-999.	4.2	12
149	A novel single-pass thinning algorithm and an effective set of performance criteria. Pattern Recognition Letters, 1995, 16, 1267-1275.	4.2	67
150	Feature extraction for neural-fuzzy inference system. , 0, , .		0
151	Neural network model for time series prediction by reinforcement learning. , 0, , .		6
152	FCMAC-AARS: A Novel FNN Architecture for Stock Market Prediction and Trading. , 0, , .		6
153	Optimally Evolving Irregular-Shaped Membership Functions for Fuzzy Systems. , 0, , .		4
154	A Novel Recurrent Neural Network Based Prediction System for Trading. , 0, , .		0
155	Rough set-based neuro-fuzzy system. , 0, , .		0
156	A Brain Inspired Fuzzy Neuro-predictor for Bank Failure Analysis. , 0, , .		4
157	Who are the "silent spreaders"? contact tracing in spatio-temporal memory models. Neural Computing and Applications, 0, , .	5.6	1