# Claus C Hilgetag

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 171 papers | 10,836 citations | 50 h-index | 103 g-index |
| 191 ext. papers | 12,648 ext. citations | 5.2 avg, IF | 6.56 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 171 | Brain simulation as a cloud service: The Virtual Brain on EBRAINS.. *NeuroImage*, **2022**, 118973 | 7.9 | 4 |
| 170 | The highways and byways of the brain.. *PLoS Biology*, **2022**, 20, e3001612 | 9.7 | 0 |
| 169 | Wiring Principles, Optimization **2022**, 3656-3661 | | |
| 168 | Connectivity Analysis in Normal and Pathological Brains **2022**, 959-963 | | |
| 167 | Single Image-Based Vignetting Correction for Improving the Consistency of Neural Activity Analysis in 2-Photon Functional Microscopy.. *Frontiers in Neuroinformatics*, **2021**, 15, 674439 | 3.9 | |
| 166 | A Connectomic Hypothesis for the Hominization of the Brain. *Cerebral Cortex*, **2021**, 31, 2425-2449 | 5.1 | 18 |
| 165 | The natural axis of transmitter receptor distribution in the human cerebral cortex. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118, | 11.5 | 18 |
| 164 | Game-theoretical mapping of fundamental brain functions based on lesion deficits in acute stroke. *Brain Communications*, **2021**, 3, fcab204 | 4.5 | 0 |
| 163 | An architectonic type principle in the development of laminar patterns of cortico-cortical connections. *Brain Structure and Function*, **2021**, 226, 979-987 | 4 | 1 |
| 162 | Bio-instantiated recurrent neural networks: Integrating neurobiology-based network topology in artificial networks. *Neural Networks*, **2021**, 142, 608-618 | 9.1 | 2 |
| 161 | Individual differences in local functional brain connectivity affect TMS effects on behavior. *Scientific Reports*, **2020**, 10, 10422 | 4.9 | 2 |
| 160 | SHierarchySin the organization of brain networks. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2020**, 375, 20190319 | 5.8 | 47 |
| 159 | Game theoretical mapping of white matter contributions to visuospatial attention in stroke patients with hemineglect. *Human Brain Mapping*, **2020**, 41, 2926-2950 | 5.9 | 5 |
| 158 | Reply: Inhibition between human brain areas or methodological artefact?. *Brain*, **2020**, 143, e39 | 11.2 | 2 |
| 157 | Revisiting Sbrain modesSin a new computational era: approaches for the characterization of brain-behavioural associations. *Brain*, **2020**, 143, 1088-1098 | 11.2 | 9 |
| 156 | Systematic modelling of the development of laminar projection origins in the cerebral cortex: Interactions of spatio-temporal patterns of neurogenesis and cellular heterogeneity. *PLoS Computational Biology*, **2020**, 16, e1007991 | 5 | 2 |
| 155 | Unifying the essential concepts of biological networks: biological insights and philosophical foundations. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2020**, 375, 20190314 | 5.8 | 0 |

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|---|---|---|---|
| 154 | Perturbation-driven paradoxical facilitation of visuo-spatial function: Revisiting the Sprague effectS *Cortex*, **2020**, 122, 10-39 | 3.8 | 10 |
| 153 | Cortical and thalamic connectivity of posterior parietal visual cortical areas PPc and PPr of the domestic ferret (Mustela putorius furo). *Journal of Comparative Neurology*, **2019**, 527, 1315-1332 | 3.4 | 5 |
| 152 | Cortical and thalamic connectivity of temporal visual cortical areas 20a and 20b of the domestic ferret (Mustela putorius furo). *Journal of Comparative Neurology*, **2019**, 527, 1333-1347 | 3.4 | 6 |
| 151 | Neuron density fundamentally relates to architecture and connectivity of the primate cerebral cortex. *NeuroImage*, **2019**, 189, 777-792 | 7.9 | 20 |
| 150 | An architectonic type principle integrates macroscopic cortico-cortical connections with intrinsic cortical circuits of the primate brain. *Network Neuroscience*, **2019**, 3, 905-923 | 5.6 | 23 |
| 149 | Comparison between diffusion MRI tractography and histological tract-tracing of cortico-cortical structural connectivity in the ferret brain. *Network Neuroscience*, **2019**, 3, 1038-1050 | 5.6 | 17 |
| 148 | Spatiotemporal ontogeny of brain wiring. *Science Advances*, **2019**, 5, eaav9694 | 14.3 | 26 |
| 147 | Discrimination of the hierarchical structure of cortical layers in 2-photon microscopy data by combined unsupervised and supervised machine learning. *Scientific Reports*, **2019**, 9, 7424 | 4.9 | 4 |
| 146 | Topological reinforcement as a principle of modularity emergence in brain networks. *Network Neuroscience*, **2019**, 3, 589-605 | 5.6 | 8 |
| 145 | A blueprint of mammalian cortical connectomes. *PLoS Biology*, **2019**, 17, e2005346 | 9.7 | 42 |
| 144 | The architecture of mammalian cortical connectomes in light of the theory of the dual origin of the cerebral cortex. *Cortex*, **2019**, 118, 244-261 | 3.8 | 22 |
| 143 | Multimodal Memory Components and Their Long-Term Dynamics Identified in Cortical Layers II/III but Not Layer V. *Frontiers in Integrative Neuroscience*, **2019**, 13, 54 | 3.2 | 3 |
| 142 | Altered topology of large-scale structural brain networks in chronic stroke. *Brain Communications*, **2019**, 1, fcz020 | 4.5 | 13 |
| 141 | Cortical and thalamic connectivity of occipital visual cortical areas 17, 18, 19, and 21 of the domestic ferret (Mustela putorius furo). *Journal of Comparative Neurology*, **2019**, 527, 1293-1314 | 3.4 | 7 |
| 140 | Multi-scale account of the network structure of macaque visual cortex. *Brain Structure and Function*, **2018**, 223, 1409-1435 | 4 | 53 |
| 139 | Neural correlates of visuospatial bias in patients with left hemisphere stroke: a causal functional contribution analysis based on game theory. *Neuropsychologia*, **2018**, 115, 142-153 | 3.2 | 8 |
| 138 | Toward a theory of coactivation patterns in excitable neural networks. *PLoS Computational Biology*, **2018**, 14, e1006084 | 5 | 19 |
| 137 | Brain anomaly networks uncover heterogeneous functional reorganization patterns after stroke. *NeuroImage: Clinical*, **2018**, 20, 523-530 | 5.3 | 7 |

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|---|---|---|---|
| 136 | Comprehensive computational modelling of the development of mammalian cortical connectivity underlying an architectonic type principle. *PLoS Computational Biology*, **2018**, 14, e1006550 | 5 | 14 |
| 135 | Structural Properties of Synaptic Transmission and Temporal Dynamics at Excitatory Layer 5B Synapses in the Adult Rat Somatosensory Cortex. *Frontiers in Synaptic Neuroscience*, **2018**, 10, 24 | 3.5 | 18 |
| 134 | Intrinsic Functional Connectivity Resembles Cortical Architecture at Various Levels of Isoflurane Anesthesia. *Cerebral Cortex*, **2018**, 28, 2991-3003 | 5.1 | 5 |
| 133 | Cortical Gradients and Laminar Projections in Mammals. *Trends in Neurosciences*, **2018**, 41, 775-788 | 13.3 | 72 |
| 132 | Principles of ipsilateral and contralateral cortico-cortical connectivity in the mouse. *Brain Structure and Function*, **2017**, 222, 1281-1295 | 4 | 52 |
| 131 | A Predictive Structural Model of the Primate Connectome. *Scientific Reports*, **2017**, 7, 43176 | 4.9 | 70 |
| 130 | Topological determinants of self-sustained activity in a simple model of excitable dynamics on graphs. *Scientific Reports*, **2017**, 7, 42340 | 4.9 | 9 |
| 129 | Modular topology emerges from plasticity in a minimalistic excitable network model. *Chaos*, **2017**, 27, 047406 | 3.3 | 7 |
| 128 | Game theoretical mapping of causal interactions underlying visuo-spatial attention in the human brain based on stroke lesions. *Human Brain Mapping*, **2017**, 38, 3454-3471 | 5.9 | 20 |
| 127 | Features of spatial and functional segregation and integration of the primate connectome revealed by trade-off between wiring cost and efficiency. *PLoS Computational Biology*, **2017**, 13, e1005776 | 5 | 21 |
| 126 | Reduced rich-club connectivity is related to disability in primary progressive MS. *Neurology: Neuroimmunology and NeuroInflammation*, **2017**, 4, e375 | 9.1 | 17 |
| 125 | The challenge of mapping the human connectome based on diffusion tractography. *Nature Communications*, **2017**, 8, 1349 | 17.4 | 609 |
| 124 | Female vs. Male Ampelmännchen-Gender-Specific Reaction Times to Male and Female Traffic Light Figures. *Frontiers in Psychology*, **2017**, 8, 690 | 3.4 | 3 |
| 123 | Causal functional contributions and interactions in the attention network of the brain: an objective multi-perturbation analysis. *Brain Structure and Function*, **2016**, 221, 2553-68 | 4 | 12 |
| 122 | Konnektivität und kortikale Architektur. *E-Neuroforum*, **2016**, 22, 83-90 | | |
| 121 | Is the brain really a small-world network?. *Brain Structure and Function*, **2016**, 221, 2361-6 | 4 | 71 |
| 120 | Modeling of Large-Scale Functional Brain Networks Based on Structural Connectivity from DTI: Comparison with EEG Derived Phase Coupling Networks and Evaluation of Alternative Methods along the Modeling Path. *PLoS Computational Biology*, **2016**, 12, e1005025 | 5 | 62 |
| 119 | Tractography-based connectomes are dominated by false-positive connections **2016**, | | 21 |

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| 118 | Konnektivität und kortikale Architektur. *Neuroforum*, **2016**, 22, 83-90 | 0.7 | |
| 117 | Building the Ferretome. *Frontiers in Neuroinformatics*, **2016**, 10, 16 | 3.9 | 8 |
| 116 | Technical considerations of a game-theoretical approach for lesion symptom mapping. *BMC Neuroscience*, **2016**, 17, 40 | 3.2 | 4 |
| 115 | Selective perturbation of cognitive conflict in the human brain-A combined fMRI and rTMS study. *Scientific Reports*, **2016**, 6, 38700 | 4.9 | 6 |
| 114 | The primate connectome in context: Principles of connections of the cortical visual system. *NeuroImage*, **2016**, 134, 685-702 | 7.9 | 73 |
| 113 | Connectivity and cortical architecture. *E-Neuroforum*, **2016**, 7, 56-63 | | 3 |
| 112 | Bridging Cytoarchitectonics and Connectomics in Human Cerebral Cortex. *Journal of Neuroscience*, **2015**, 35, 13943-8 | 6.6 | 90 |
| 111 | A closer look at the apparent correlation of structural and functional connectivity in excitable neural networks. *Scientific Reports*, **2015**, 5, 7870 | 4.9 | 35 |
| 110 | Mapping causal functional contributions derived from the clinical assessment of brain damage after stroke. *NeuroImage: Clinical*, **2015**, 9, 83-94 | 5.3 | 22 |
| 109 | Persistency and flexibility of complex brain networks underlie dual-task interference. *Human Brain Mapping*, **2015**, 36, 3542-62 | 5.9 | 28 |
| 108 | The effect of 10 Hz repetitive transcranial magnetic stimulation of posterior parietal cortex on visual attention. *PLoS ONE*, **2015**, 10, e0126802 | 3.7 | 6 |
| 107 | A predictive model of the cat cortical connectome based on cytoarchitecture and distance. *Brain Structure and Function*, **2015**, 220, 3167-84 | 4 | 74 |
| 106 | Attention and control of manual responses in cognitive conflict: Findings from TMS perturbation studies. *Neuropsychologia*, **2015**, 74, 7-20 | 3.2 | 20 |
| 105 | Multiclass Support Vector Machine-Based Lesion Mapping Predicts Functional Outcome in Ischemic Stroke Patients. *PLoS ONE*, **2015**, 10, e0129569 | 3.7 | 31 |
| 104 | Hierarchical modular brain connectivity is a stretch for criticality. *Trends in Cognitive Sciences*, **2014**, 18, 114-5 | 14 | 38 |
| 103 | Brain network science needs to become predictive. Comment on "Understanding brain networks and brain organization" by Luiz Pessoa. *Physics of Life Reviews*, **2014**, 11, 446-7 | 2.1 | 2 |
| 102 | Perspective: network-guided pattern formation of neural dynamics. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369, | 5.8 | 32 |
| 101 | Towards a "canonical" agranular cortical microcircuit. *Frontiers in Neuroanatomy*, **2014**, 8, 165 | 3.6 | 41 |

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| 100 | Cortico-cortical communication dynamics. *Frontiers in Systems Neuroscience*, **2014**, 8, 19 | 3.5 | 20 |
| 99 | Tracing evolution of spatio-temporal dynamics of the cerebral cortex: cortico-cortical communication dynamics. *Frontiers in Systems Neuroscience*, **2014**, 8, 76 | 3.5 | 4 |
| 98 | Occipitoparietal alpha-band responses to the graded allocation of top-down spatial attention. *Journal of Neurophysiology*, **2014**, 112, 1307-16 | 3.2 | 20 |
| 97 | Role of long cycles in excitable dynamics on graphs. *Physical Review E*, **2014**, 90, 052805 | 2.4 | 13 |
| 96 | Influence of stroke infarct location on functional outcome measured by the modified rankin scale. *Stroke*, **2014**, 45, 1695-702 | 6.7 | 140 |
| 95 | Intrinsic coupling modes: multiscale interactions in ongoing brain activity. *Neuron*, **2013**, 80, 867-86 | 13.9 | 295 |
| 94 | Automated volumes-of-interest identification for classical and atypical Parkinsonian syndrome differentiation using T2SMR imaging. *Methods of Information in Medicine*, **2013**, 52, 128-36 | 1.5 | 3 |
| 93 | Influence of stimulus type on effects of flanker, flanker position, and trial sequence in a saccadic eye movement task. *Quarterly Journal of Experimental Psychology*, **2013**, 66, 2253-67 | 1.8 | 4 |
| 92 | Trade-off between multiple constraints enables simultaneous formation of modules and hubs in neural systems. *PLoS Computational Biology*, **2013**, 9, e1002937 | 5 | 73 |
| 91 | Should I stay or should I go--cognitive conflict in multi-attribute signals probed with East and West German SAmpelmÃnchenStraffic signs. *PLoS ONE*, **2013**, 8, e64712 | 3.7 | 3 |
| 90 | Model Complexity in the Study of Neural Network Phenomena **2013**, 77-81 | | |
| 89 | Modular Organization Enables Both Self-Organized Criticality and Oscillations in Neural Systems **2013**, 207-212 | | |
| 88 | Stochastic resonance in discrete excitable dynamics on graphs. *Chaos, Solitons and Fractals*, **2012**, 45, 611-618 | 9.3 | 20 |
| 87 | Building blocks of self-sustained activity in a simple deterministic model of excitable neural networks. *Frontiers in Computational Neuroscience*, **2012**, 6, 50 | 3.5 | 29 |
| 86 | Mapping the connectome: multi-level analysis of brain connectivity. *Frontiers in Neuroinformatics*, **2012**, 6, 14 | 3.9 | 56 |
| 85 | Characterization of visual percepts evoked by noninvasive stimulation of the human posterior parietal cortex. *PLoS ONE*, **2011**, 6, e27204 | 3.7 | 23 |
| 84 | Sustained activity in hierarchical modular neural networks: self-organized criticality and oscillations. *Frontiers in Computational Neuroscience*, **2011**, 5, 30 | 3.5 | 72 |
| 83 | Gyrification and neural connectivity in schizophrenia. *Development and Psychopathology*, **2011**, 23, 339-52 | 4.3 | 91 |

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| 82 | Dynamics of Hierarchical Neural Networks **2011**, 215-219 | | |
| 81 | Optimal hierarchical modular topologies for producing limited sustained activation of neural networks. *Frontiers in Neuroinformatics*, **2010**, 4, 8 | 3.9 | 70 |
| 80 | Hierarchy and dynamics of neural networks. *Frontiers in Neuroinformatics*, **2010**, 4, | 3.9 | 90 |
| 79 | Cytoarchitectural differences are a key determinant of laminar projection origins in the visual cortex. *NeuroImage*, **2010**, 51, 1006-17 | 7.9 | 66 |
| 78 | Contributions of human parietal and frontal cortices to attentional control during conflict resolution: a 1-Hz offline rTMS study. *Experimental Brain Research*, **2010**, 205, 131-8 | 2.3 | 12 |
| 77 | A simple rule for axon outgrowth and synaptic competition generates realistic connection lengths and filling fractions. *Cerebral Cortex*, **2009**, 19, 3001-10 | 5.1 | 75 |
| 76 | A proposal for a coordinated effort for the determination of brainwide neuroanatomical connectivity in model organisms at a mesoscopic scale. *PLoS Computational Biology*, **2009**, 5, e1000334 | 5 | 206 |
| 75 | Random axon outgrowth and synaptic competition generate realistic connection lengths and filling fractions. *BMC Neuroscience*, **2009**, 10, | 3.2 | 1 |
| 74 | Are there ten times more glia than neurons in the brain?. *Brain Structure and Function*, **2009**, 213, 365-6 | 4 | 59 |
| 73 | Sculpting the brain. *Scientific American*, **2009**, 300, 66-71 | 0.5 | 9 |
| 72 | . *Journal of the Neurological Sciences*, **2009**, 276, 204-205 | 3.2 | |
| 71 | . *Journal of the Neurological Sciences*, **2009**, 276, 205 | 3.2 | |
| 70 | Beyond the average: Detecting global singular nodes from local features in complex networks. *Europhysics Letters*, **2009**, 87, 18008 | 1.6 | 17 |
| 69 | Organization of excitable dynamics in hierarchical biological networks. *PLoS Computational Biology*, **2008**, 4, e1000190 | 5 | 107 |
| 68 | Perturbation of visuospatial attention by high-frequency offline rTMS. *Experimental Brain Research*, **2008**, 189, 121-8 | 2.3 | 19 |
| 67 | Structure□unction Relationship in Complex Brain Networks by Multilevel Modeling **2008**, 511-514 | | |
| 66 | Predicting the connectivity of primate cortical networks from topological and spatial node properties. *BMC Systems Biology*, **2007**, 1, 16 | 3.5 | 58 |
| 65 | Development of multi-cluster cortical networks by time windows for spatial growth. *Neurocomputing*, **2007**, 70, 1829-1832 | 5.4 | 40 |

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| 64 | Structure–function relationship in complex brain networks expressed by hierarchical synchronization. *New Journal of Physics*, **2007**, 9, 178-178 | 2.9 | 116 |
| 63 | Criticality of spreading dynamics in hierarchical cluster networks without inhibition. *New Journal of Physics*, **2007**, 9, 110-110 | 2.9 | 82 |
| 62 | Sequence of information processing for emotions based on the anatomic dialogue between prefrontal cortex and amygdala. *NeuroImage*, **2007**, 34, 905-23 | 7.9 | 646 |
| 61 | Aufmerksamkeit **2007**, 459-467 | | |
| 60 | Organization and Function of Complex Cortical Networks **2007**, 107-133 | | 3 |
| 59 | Nonoptimal component placement, but short processing paths, due to long-distance projections in neural systems. *PLoS Computational Biology*, **2006**, 2, e95 | 5 | 452 |
| 58 | Axiomatic scalable neurocontroller analysis via the Shapley value. *Artificial Life*, **2006**, 12, 333-52 | 1.4 | 30 |
| 57 | Role of mechanical factors in the morphology of the primate cerebral cortex. *PLoS Computational Biology*, **2006**, 2, e22 | 5 | 228 |
| 56 | Hierarchical organization unveiled by functional connectivity in complex brain networks. *Physical Review Letters*, **2006**, 97, 238103 | 7.4 | 361 |
| 55 | Functional circuitry underlying visual neglect. *Brain*, **2006**, 129, 1803-21 | 11.2 | 57 |
| 54 | Principles of brain connectivity organization. *Behavioral and Brain Sciences*, **2006**, 29, 18-19 | 0.9 | 3 |
| 53 | Graded classes of cortical connections: quantitative analyses of laminar projections to motion areas of cat extrastriate cortex. *European Journal of Neuroscience*, **2005**, 22, 681-96 | 3.5 | 39 |
| 52 | Parallel organization of contralateral and ipsilateral prefrontal cortical projections in the rhesus monkey. *BMC Neuroscience*, **2005**, 6, 32 | 3.2 | 67 |
| 51 | Developmental mechanics of the primate cerebral cortex. *Anatomy and Embryology*, **2005**, 210, 411-7 | | 150 |
| 50 | Fair attribution of functional contribution in artificial and biological networks. *Neural Computation*, **2004**, 16, 1887-915 | 2.9 | 75 |
| 49 | Causal localization of neural function: the Shapley value method. *Neurocomputing*, **2004**, 58-60, 215-222 | 5.4 | 12 |
| 48 | Modelling the development of cortical systems networks. *Neurocomputing*, **2004**, 58-60, 297-302 | 5.4 | 89 |
| 47 | Fair localization of function via multi-lesion analysis. *Neuroinformatics*, **2004**, 2, 163-8 | 3.2 | 12 |

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|---|---|---|---|
| 46 | Clustered organization of cortical connectivity. *Neuroinformatics*, **2004**, 2, 353-60 | 3.2 | 188 |
| 45 | Edge vulnerability in neural and metabolic networks. *Biological Cybernetics*, **2004**, 90, 311-7 | 2.8 | 84 |
| 44 | Spatial growth of real-world networks. *Physical Review E*, **2004**, 69, 036103 | 2.4 | 142 |
| 43 | Organization, development and function of complex brain networks. *Trends in Cognitive Sciences*, **2004**, 8, 418-25 | 14 | 1549 |
| 42 | Bilateral competitive processing of visual spatial attention in the human brain. *Neurocomputing*, **2003**, 52-54, 793-798 | 5.4 | 5 |
| 41 | The PUPS-MOSIX Environment: A Homeostatic Environment for Neuro- and Bio-informatic Applications **2003**, 187-202 | | 1 |
| 40 | Classes and gradients of prefrontal cortical organization in the primate. *Neurocomputing*, **2002**, 44-46, 823-829 | 5.4 | 3 |
| 39 | Topographic restoration of visual spatial attention in the cortically blind cat. *Neurocomputing*, **2002**, 44-46, 831-835 | 5.4 | 2 |
| 38 | Restoration of visual orienting into a cortically blind hemifield by reversible deactivation of posterior parietal cortex or the superior colliculus. *Experimental Brain Research*, **2002**, 142, 463-74 | 2.3 | 42 |
| 37 | Reaction routes in biochemical reaction systems: algebraic properties, validated calculation procedure and example from nucleotide metabolism. *Journal of Mathematical Biology*, **2002**, 45, 153-81 | 2 | 163 |
| 36 | Enhanced visual spatial attention ipsilateral to rTMS-induced 'virtual lesions' of human parietal cortex. *Nature Neuroscience*, **2001**, 4, 953-7 | 25.5 | 476 |
| 35 | Connectional characteristics of areas in Walker's map of primate prefrontal cortex. *Neurocomputing*, **2001**, 38-40, 741-746 | 5.4 | 18 |
| 34 | Uniformity and specificity of long-range corticocortical connections in the visual cortex of the cat. *Neurocomputing*, **2001**, 38-40, 667-673 | 5.4 | 3 |
| 33 | Neural mechanisms of spatial attention in the cat. *Neurocomputing*, **2001**, 38-40, 1281-1287 | 5.4 | 7 |
| 32 | Hierarchical organization and neuronal response latencies in the primate visual system. *Neurocomputing*, **2001**, 38-40, 1519-1523 | 5.4 | 3 |
| 31 | Quantitative architecture distinguishes prefrontal cortical systems in the rhesus monkey. *Cerebral Cortex*, **2001**, 11, 975-88 | 5.1 | 180 |
| 30 | The portable UNIX programming system (PUPS) and CANTOR: a computational environment for dynamical representation and analysis of complex neurobiological data. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2001**, 356, 1259-76 | 5.8 | 3 |
| 29 | Simultaneity of responses in a hierarchical visual network. *NeuroReport*, **2001**, 12, 2753-9 | 1.7 | 30 |

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|---|---|---|---|
| 28 | Spatial neglect and paradoxical lesion effects in the cat A model based on midbrain connectivity. *Neurocomputing*, **2000**, 32-33, 793-799 | 5.4 | 11 |
| 27 | Uniformity, specificity and variability of corticocortical connectivity. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2000**, 355, 7-20 | 5.8 | 38 |
| 26 | Hierarchical organization of macaque and cat cortical sensory systems explored with a novel network processor. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2000**, 355, 71-89 | 5.8 | 117 |
| 25 | Anatomical connectivity defines the organization of clusters of cortical areas in the macaque monkey and the cat. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2000**, 355, 91-110 | 5.8 | 395 |
| 24 | Computational analysis of functional connectivity between areas of primate cerebral cortex. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2000**, 355, 111-26 | 5.8 | 196 |
| 23 | On imputing function to structure from the behavioural effects of brain lesions. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2000**, 355, 147-61 | 5.8 | 65 |
| 22 | Models of paradoxical lesion effects and rules of inference for imputing function to structure in the brain. *Neurocomputing*, **1999**, 26-27, 933-938 | 5.4 | 5 |
| 21 | The connectional organization of the cortico-thalamic system of the cat. *Cerebral Cortex*, **1999**, 9, 277-99 | 5.1 | 277 |
| 20 | Inter-hemispheric competition of sub-cortical structures is a crucial mechanism in paradoxical lesion effects and spatial neglect. *Progress in Brain Research*, **1999**, 121, 121-41 | 2.9 | 40 |
| 19 | Cluster Structure of Cortical Systems in Mammalian Brains **1998**, 41-46 | | 5 |
| 18 | Optimization Analysis of Complex Neuroanatomical Data **1997**, 925-930 | | 2 |
| 17 | Indeterminate organization of the visual system. *Science*, **1996**, 271, 776-7 | 33.3 | 148 |
| 16 | A solution to the binding problem? Information processing. *Current Biology*, **1996**, 6, 1092-5 | 6.3 | 16 |
| 15 | Non-metric multidimensional scaling in the analysis of neuroanatomical connection data and the organization of the primate cortical visual system. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **1995**, 348, 281-308 | 5.8 | 59 |
| 14 | What Information about the Conserved-Moiety Structure of Chemical Reaction Systems Can be Derived from Their Stoichiometry?. *The Journal of Physical Chemistry*, **1995**, 99, 8017-8023 | | 27 |
| 13 | ON ELEMENTARY FLUX MODES IN BIOCHEMICAL REACTION SYSTEMS AT STEADY STATE. *Journal of Biological Systems*, **1994**, 02, 165-182 | 1.6 | 369 |
| 12 | Use of convex analysis for the modelling of biochemical reaction systems. *Lecture Notes in Control and Information Sciences*, **1994**, 365-374 | 0.5 | |
| 11 | Computational Methods for the Analysis of Brain Connectivity295-336 | | 22 |

# List of Publications

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|---|---|---|
| 10 | Comprehensive computational modelling of the development of mammalian cortical connectivity underlying an architectonic type principle | 2 |
| 9 | Topological Reinforcement as a Principle of Modularity Emergence in Brain Networks | 3 |
| 8 | An architectonic type principle in the development of laminar patterns of cortico-cortical connections | 1 |
| 7 | Cytoarchitectonic similarity is a wiring principle of the human connectome | 7 |
| 6 | Intrinsic functional connectivity resembles cortical architecture at various levels of isoflurane anesthesia | 1 |
| 5 | The natural axis of transmitter receptor distribution in the human cerebral cortex | 1 |
| 4 | Neuron density fundamentally relates to architecture and connectivity of the primate cerebral cortex | 1 |
| 3 | Brain Connectivity meets Reservoir Computing | 3 |
| 2 | Bio-instantiated recurrent neural networks | 3 |
| 1 | A natural cortical axis connecting the outside and inside of the human brain. *Network Neuroscience*,1-20 5.6 | 0 |