

Publications (J: journal papers; P: conference papers)**2022**

- [J358] SY Huang, et al. (2022) Sleep, physical activity, sedentary behavior, and risk of incident dementia: a prospective cohort study of 431,924 UK Biobank participants. *Molecular Psychiatry*, doi: 10.1038/s41380-022-01655-y.
- [J357] Y Guo, et al. (2022) Circulating metabolites associated with incident myocardial infarction and stroke: A prospective cohort study of 90 438 participants. *Journal of Neurochemistry*, 162(4):371-384.
- [J356] YR Zhang, et al. (2022) Immune-mediated diseases are associated with a higher incidence of dementia: a prospective cohort study of 375,894 individuals. *Alzheimers Research & Therapy*, 14(1):130.
- [J355] Y Hou, et al. (2022) Deep white matter hyperintensity is spatially correlated to MRI-visible perivascular spaces in cerebral small vessel disease on 7 Tesla MRI. *Stroke and Vascular Neurology*, svn-2022-001611.
- [J354] YT Deng, et al. (2022) Associations of resting heart rate with incident dementia, cognition, and brain structure: a prospective cohort study of UK biobank. *Alzheimers Research & Therapy*, 14(1):147.
- [J353] Rolls, Edmund T, et al. (2022) Prefrontal and somatosensory-motor cortex effective connectivity in humans. *Cerebral Cortex*, bhac391.
- [J352] DD Zhang, et al. (2022) Investigating the association between cancer and dementia risk: a longitudinal cohort study. *Alzheimers Research & Therapy*, 14(1):146.
- [J351] J You, et al. (2022) Development of a novel dementia risk prediction model in the general population: A large, longitudinal, population-based machine-learning study. *EClinicalMedicine*, 53:101665.
- [J350] HY-Hu, et al. (2022) Residential greenness and risk of incident dementia: A prospective study of 375,342 participants. *Environmental Research*,216(Pt 3):114703.
- [J349] WJ Su, et al. (2022) Effects of polygenic risk of schizophrenia on interhemispheric callosal white matter integrity and frontotemporal functional connectivity in first-episode schizophrenia. *Psychological Medicine*, online. doi:10.1017/S0033291721004840.
- [J348] J Yan, et al. (2022) ICH-LR2S2: a new risk score for predicting stroke-associated pneumonia from spontaneous intracerebral hemorrhage. *Journal of Translational Medicine*, 20(1).
- [J347] JJ Kang, et al. (2022) Associations between polygenic risk scores and amplitude of low-frequency fluctuation of inferior frontal gyrus in schizophrenia. *Journal of Psychiatric Research*, 147:4-12.
- [J346] N Hua, et al. (2022) Analytic investigation for synchronous firing patterns propagation in spiking neural networks. *Neural Processing Letters*, online. doi:10.1007/s11063-022-10792-y.

- [J345] X Bai, et al. (2022) Effects of environmental concentrations of total phosphorus on the plankton community structure and function in a microcosm study. *International Journal of Environmental Research And Public Health*, 19 (14).
- [J344] GY Dong, et al. (2022) MorbidGCN: prediction of multimorbidity with a graph convolutional network based on integration of population phenotypes and disease network. *Briefings in Bioinformatics*, online. doi:10.1093/bib/bbac255.
- [J343] ET Rolls, et al. (2022) Multiple cortical visual streams in humans. *Cerebral Cortex*, online. doi:10.1093/cercor/bhac276.
- [J342] ZY Jiao, et al. (2022) A model-based approach to assess reproducibility for large-scale high-throughput MRI-based studies. *Neuroimage*, 255.
- [J341] XY He, et al. (2022) Serum clinical laboratory tests and risk of incident dementia: a prospective cohort study of 407,190 individuals. *Translational Psychiatry* (accepted).
- [J340] ZY Zhou, L Du, XQ Ye, ZK Zou, X Tan, L Zhang, XY Xue, JF Feng (2022) SGM3D: Stereo guided monocular 3d object detection. *IEEE Robotics and Automation Letters*, 7(4):10478-10485. doi:10.1109/LRA.2022.3191849.
- [J339] LT Song, et al. (2022) Impaired type I interferon signaling activity implicated in the peripheral blood transcriptome of preclinical Alzheimer's disease. *EBioMedicine*, 82:104175.
- [J338] Y Dai, et al. (2022) Shanghai autism early development: An integrative chinese ASD cohort. *Neuroscience Bulletin*, online. doi:10.1007/s12264-022-00904-y.
- [J337] J Jia, et al. (2022) Sparse logistic regression revealed the associations between HBV PreS quasispecies and hepatocellular carcinoma. *Virology Journal*, 19(1): 1-15.
- [J336] WY Zhang, BY Chen, JF Feng, WL Lu(2022) On a framework of data assimilation for neuronal networks. *Arxiv*. <https://arxiv.org/abs/2206.02986>.
- [P47] YH Liu, et al. (2022) Regularizing Sparse and Imbalanced Communications for Voxel-based Brain Simulations on Supercomputers. *51st International Conference on Parallel Processing* (accepted).
- [J335] ET Rolls, G Deco, CC Huang, and JF Feng (2022) The human posterior parietal cortex: effective connectome, and its relation to function. *Cerebral Cortex*, online, doi: 10.1093/cercor/bhac266.
- [P46] HY Ma, L Zhang, XT Zhu, JF Zhang, JF Feng (2022) Accelerating score-based generative models for high-resolution image synthesis. *ECCV* (accepted).
- [J334] W Guo, S Geng, M Cao, J Feng (2022) The brain connectome for chinese reading. *Neuroscience Bulletin*, online. doi:10.1007/s12264-022-00864-3.
- [J333] W Guo, S Geng, M Cao, J Feng (2022) Functional gradient of the fusiform cortex for chinese character recognition. *Neuron*, 9(3).
- [J332] LZMa, et al. (2022) Cataract, cataract surgery, and risk of incident dementia: a prospective cohort study of 300,823 participants. *Biological Psychiatry*, doi.org/10.1016/j.biopsych.2022.06.005.

- [J331] ET Rolls, G Deco, CC Huang, and JF Feng (2022) The human language effective connectome. *NeuroImage*, 258. doi: 10.1016/j.neuroimage.2022.119352.
- [J330] BY Zhang, et al. (2022) Day to day blood pressure variability associated with cerebral arterial dilation and white matter hyperintensity. *Hypertension*, 79(7):1455-1465. doi: 10.1161/HYPERTENSIONAHA.122.19269.
- [J329] A Yang, ET Rolls, G Dong, J Du, Y Li, J Feng, W Cheng, XM Zhao (2022) Longer screen time utilization is associated with the polygenic risk for Attention-deficit/hyperactivity disorder with mediation by brain white matter microstructure. *EBioMedicine*, 80:104039.
- [J328] YT Deng, et al.(2022) Association of life course adiposity with risk of incident dementia: a prospective cohort study of 322,336 participants. *Molecular Psychiatry*, online. doi:10.1038/s41380-022-01604-9.
- [J327] W Cui, et al.(2022) Risk score for predicting stroke-associated pneumonia from spontaneous intracerebral hemorrhage. *Journal of Translational Medicine* (accepted).
- [J326] X Han, et al. (2022) The value of longitudinal clinical data and paired CT scans in predicting the deterioration of COVID-19 revealed by an artificial intelligence system. *IScience*, 25(5). doi:10.1016/j.isci.2022.104227.
- [J325] LB Wang, et al.(2022) Association of cerebrospinal fluid neurofilament heavy protein levels with clinical progression in patients with Parkinson's diseases. *JAMA Network Open*, 5(7):e2223821.
- [J324] Z Wan, et al.(2022) Brain functional connectivities that mediate the association between childhood traumatic events, and adult mental health and cognition. *EBioMedicine*, 79. doi:10.1016/j.ebiom.2022.104002.
- [J323] W Zhao, V Voon, et al. Jianfeng Feng (2022) Common abnormal connectivity in first-episode and chronic schizophrenia in pre- and post-central regions: implications for neuromodulation targeting. *Progress in Neuropsychopharmacology & Biological Psychiatry*, 117. doi:10.1016/j.pnpbp.2022.110556.
- [J322] XR Wu, XZ Kong, D Vatansever, ZW Liu, K Zhang, BJ Sahakian, TW Robbins, JF Feng, P Thompson, J Zhang (2022) Dynamic changes in brain lateralization correlate with human cognitive performance. *PLOS Biology*, 20(3). doi:10.1371/journal.pbio.3001560.
- [J321] LB Wang, et al. JF Feng (2022) Association of structural measurements of brain reserve with motor progression in patients with Parkinson disease. *Neurology*. doi:10.1212/WNL.0000000000200814 (accepted).
- [J320] CC Huang et al. (2022) An extended human connectome project multimodal parcellation atlas of the human cortex and subcortex areas. *Brain Structure and Function*, 227: 763-778.
- [J319] Y Qin et al. HY Wang (2022) A recurrent SHANK1 mutation implicated in autism spectrum disorder causes autistic-like core behaviors in mice via downregulation of mGluR1-IP3R1-calcium signaling. *Molecular Psychiatry*, online. Doi:10.1038/s41380-022-01605-8.

- [J318] C Shen, et al. JF Feng (2022) Associations of social isolation and loneliness with later dementia. *Neurology Editorial*, 99(2):E164-E175. doi: <https://doi.org/10.1212/WNL.0000000000200583>.
- [J317] YJ Sun, et al. JF Feng (2022) Early childhood reading for pleasure: Evidence from the abcd study for benefits to cognitive performance and mental health and associated changes in brain structure. medrxiv 2022.02.27.22271550v1.
- [J316] JY Han et al. JF Feng (2022) The devil is in the face: Exploiting harmonious representations for facial expression recognition. *Neurocomputing*, 486:104-113. doi.org/10.1016/j.neucom.2022.02.054
- [J315] SX Zheng, et al. (2022) Clustering by the probability distributions from extreme value theory. *IEEE T Artificial Intelligence*, doi: 10.1109/TAI.2022.3153592.
- [J314] JJ Kang, TY Jia, ZY Jiao, C Shen, C Xie, W Cheng, BJ Sahakian, D Waxman, and JF Feng(2022) Increased brain volume from higher cereal and lower coffee intake: shared genetic determinants and impacts on cognition and metabolism. *Cerebral Cortex*, online. doi.org/10.1093/cercor/bhac005.
- [J313] ET Rolls, G Deco, CC Huang, and JF Feng (2022) The human orbitofrontal cortex, vmPFC, and anterior cingulate cortex effective connectome: emotion, memory, and action. *Cerebral Cortex*, online. doi: 10.1093/cercor/bhac070.
- [J312] TP Zeng, BL Si, JF Feng (2022) A theory of geometry representations for spatial navigation. *Progress in Neurobiology*, 211. IF= 10.98
- [J311] X Du, et al. (2022) A low-latency communication design for brain simulations. *IEEE Network*, 36(2):8-15. doi: 10.1109/MNET.008.2100447. IF= 10.79
- [J310] Z Xu, JF Feng, LC Yu (2022) Avalanche criticality in individuals, fluid intelligence and working memory. *Human Brain Mapping*, 43(8): 2534-2553. <https://doi.org/10.1002/hbm.25802>.
- [J309] YZ Li, B Sahakian, et al., W Cheng, JF Feng (2022) The brain structure and genetic mechanisms underlying the nonlinear association between sleep duration, cognition and mental health. *Nature Aging*. It is reported in all over world medias including The Times, CNN, ABC news (YouTube) etc. <https://doi.org/10.1038/s43587-022-00210-2>.
- [J308] YR Zhang, et al. (2022) Peripheral immunity is associated with the risk of incident dementia. *Molecular Psychiatry*, 27(4):1956-1962. doi.org/10.1038/s41380-022-01446-5
- [J307] Q Ma, ET Rolls, CC Huang, W Cheng, and JF Feng (2022) Extensive cortical functional connectivity of the human hippocampal memory system. *Cortex*, 147: 83-101. doi: 10.1016/j.cortex.2021.11.014. Supplementary Material
- [J306] ET Rolls, Z Wan, W Cheng, JF Feng (2022) Risk-taking in humans and the medial orbitofrontal cortex reward system. *Neuroimage*, 249. doi: 10.1016/j.neuroimage.2022.118893.
- [J305] ET Rolls, G Deco, CC Huang, and JF Feng (2022) The effective connectivity of the human hippocampal memory system. *Cerebral Cortex*, doi: 10.1093/cercor/bhab442.

- [J304] L Xu, et al. (2022) Avalanche criticality in individuals is associated with fluid intelligence and working memory capacity. 43(8):2534-2553. doi: <https://doi.org/10.1101/2020.08.24.260588>.
- [J303] H Chao, K Wang, Y He, J Zhang, JF Feng (2022) GaitSet: Cross-view gait recognition through utilizing gait as a deep set. *IEEE TPAMI*. 44(7):3467-3478. doi: 10.1109/TPAMI.2021.3057879/. (IF=17.7)
- [J302] Q Zhao, et al., JF Feng (2022) The ABCD study: Brain heterogeneity in intelligence during a neurodevelopmental transition stage. *Cerebral Cortex*, 32(14):3098-3109.
- [J301] ZQ Linli, et al., SX Guo (2022) Associations between smoking and accelerated brain ageing. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 113:110471. doi: 10.1016/j.pnpbp.2021.110471.
- [J300] D Chen, et al., JF Feng (2022) Brain signatures during reward anticipation predict persistent ADHD symptoms. *Journal of the American Academy of Child and Adolescent Psychiatry*, 61(8):1050-1061.
- [J299] ET Rolls, et al., JF Feng (2022) The effective connectivity of the human hippocampal memory system. *Cerebral Cortex*, doi:10.1093/cercor/bhab442 (in press).
- [J298] A Huang, et al. (2022) An extended Human Connectome Project multimodal parcellation atlas of the human cortex and subcortical areas. *Brain Structure and Function*, 227(3):763-778. doi: 10.1007/s00429-021-02421-6.
- [J297] SD Chen, et al., YJ Wang (2022) Machine learning is an effective method to predict the 90-day prognosis of patients with transient ischemic attack and minor stroke. *BMC Medical Research Methodology*, 22(1).
- [J296] LB Wang, et al.(2022) Dopamine depletion and subcortical dysfunction disrupt cortical synchronization and metastability affecting cognitive function in Parkinson's disease. *Human Brain Mapping*, 43(5): 1598-1610.

2021

- [J295] JF Feng, et al. (2021) Full-dimension Data and Intelligence Medical Care: Prospects and Challenges. *Bulletin of National Natural Science Foundation of China*, 35 (1):73-80.
- [J294] JN Du, et al. (2021) The genetic determinants of language network dysconnectivity in drug-naive early stage schizophrenia. *NPJ Schizophrenia*, 7 (1).
- [J293] C Zhou, et al. (2021) Locus coeruleus degeneration correlated with levodopa resistance in parkinson's disease: A retrospective analysis. *Journal of Parkinsons Disease*, 11 (4):1631-1640.
- [J292] W Cheng, et al. (2021) Exploring brain diseases with multi-scale, multi-modality data and computational approach. *Bulletin of National Natural Science Foundation of China*, 35 (1):92-103.
- [P45] JY Han, et al. (2021) ISE-RCNN: Image semantics enhancement network for robust 3d object detection. *AAAI* (accepted).

- [J291] SJ Geng, WW Guo, KY Xu, TY Jia, W Zhou, C Blakemore, LH Tan, M Cao, JF Feng (2021) Divergence and convergence of cortical encoding during word reading in bilinguals. *BioRxiv*.
- [J290] Y Dai, LL Zhang, et al. (2021) Improved symptoms following bumetanide treatment in children aged 3-6 years with autism spectrum disorder: a randomized, double-blind, placebo-controlled trial. *Science Bulletin*, 66(15):1591-1598. doi: 10.1016/j.scib.2021.01.008.
- [J289] L Du, XQ Ye, et al. JF Feng (2021) AGO-Net: Association-guided 3d point cloud object detection network. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, PP. doi: 10.1109/TPAMI.2021.3104172. (IF=16.389)
- [J288] XZ Zhao, JQ Chen, et al. (2021) Identifying age-specific gene signatures of the human cerebral cortex with joint analysis of transcriptomes and functional connectomes. *Briefings in Bioinformatics*, 22(4). doi: 10.1093/scan/nsab083. (IF=11.622)
- [J287] ET Rolls, RQ Feng, W Cheng, JF Feng (2021) Orbitofrontal cortex connectivity is associated with food reward and body weight in humans. *Social Cognitive and Affective Neuroscience*, SI. doi: 10.1093/scan/nsab083.
- [J286] ZY Song, Y Zhou, JF Feng, M Juusola (2021) Multiscale 'whole-cell' models to study neural information processing-New insights from fly photoreceptor studies. *Journal of Neuroscience Methods*, 357. doi: 10.1016/j.jneumeth.2021.109156.
- [J285] L He, DT Wei, et al. JF Feng(2021) Functional Connectome Prediction of Anxiety Related to the COVID-19 Pandemic. *American Journal of Psychiatry*, 178(6):530-540. doi: 10.1176/appi.ajp.2020.20070979. (IF=18.112)
- [J284] WK Gong, ET Rolls, JN Du, JF Feng, W Cheng (2021) Brain structure is linked to the association between family environment and behavioral problems in children in the ABCD study. *Nature Communications*, 12(1):3769. doi: 10.1038/s41467-021-23994-0. (IF=14.919)
- [J283] D Chen, TY Jia, YN Zhang, et al. JF Feng (2021) Neural biomarkers distinguish severe from mild autism spectrum disorder among high-functioning individuals. *Frontiers in Human Neuroscience*, 15. doi: 10.3389/fnhum.2021.657857.
- [J282] Y Zhang, Q Luo, CC Huang, et al.(2021) The human brain is best described as being on a female/male continuum: Evidence from a neuroimaging connectivity study. *Cerebral Cortex*, 31(6):3021-3033.
- [J281] C Xie, TY Jia, ET Rolls, et al. JF Feng (2021) Reward versus nonreward sensitivity of the medial versus lateral orbitofrontal cortex relates to the severity of depressive symptoms. *Biological Psychiatry-cognitive Neuroscience and Neuroimaging*, 6(3): 259-269. doi: 10.1016/j.bpsc.2020.08.017.
- [J280] M Tschorn, RC Lorenz, et al. (2021) Differential predictors for alcohol use in adolescents as a function of familial risk. *Translational Psychiatry*, 11(1). doi: 10.1038/s41398-021-01260-7.

- [J279] JN Du, et al. (2021) Exploration of Alzheimer's Disease MRI Biomarkers Using APOE4 Carrier Status in the UK Biobank. *Medrxiv*. <https://doi.org/10.1101/2021.09.09.21263324>.
- [J278] ST Xiang, et al. and JF Feng (2021) A novel analytical decoder of BOLD signals for dissociating latent neurobehavioral processes. *Biorxiv*. doi: 10.1101/2021.08.25.457728.
- [J277] LB Wang, et al. and JF Feng (2021) A prognostic MRI biomarker in early Parkinson's disease and the underlying transcriptional architecture. *Neurology* (under revision).
- [J276] JN Du, et al. JF Feng (2021) Association between parental age, brain structure, and behavioral and cognitive problems in children. *Molecular Psychiatry*, 27(2):967-975. doi: 10.1038/s41380-021-01325-5
- [J275] X Chang, et al. JF Feng (2021) Psychiatric disorders in China: Strengths and challenges of contemporary research and clinical services. *Psychological Medicine*, 51(12):1978-1991. doi: doi.org/ 10.1017/S0033291721002816.
- [J274] ZW Liu, et al. JF Feng (2021) Resolving heterogeneity in schizophrenia through a novel systems approach to brain structure: Individualized structural covariance network analysis. *Molecular Psychiatry*, 26(12):7719-7731. doi: 10.1038/s41380-021-01229-4. (IF=15.992)
- [J273] L Zhang, et al. JF Feng (2021) Sensory, somatomotor and internal mentation networks emerge dynamically in the resting brain with internal mentation predominating in older age. *NeuroImage*, 237:118188.
- [J272] JL Zhu, et al. SY Wang (2021) Mindfulness practice for protecting mental health during the COVID-19 pandemic. *Transl. Psychiatry*, 11(1):329.
- [J271] M Tahmasian, et al. (2021) ENIGMA-Sleep: Challenges, opportunities, and the road map. *J. of Sleep Research*, 30(6):e13347. <https://doi.org/10.1111/jsr.13347>.
- [J270] GY Dong, et al (2021) A global overview of genetically interpretable multimorbidities among common diseases in the UK Biobank. *Genome Medicine*, 13(1):110. doi: 10.1186/s13073-021-00927-6. (IF=11.117)
- [P44] ZK Zou, et al. (2021) The devil is in the task: Exploiting reciprocal appearance-localization features for monocular 3d object detection. *ICCV*, 2693-2702.
- [J269] J Chen, G Dong, L Song, X Zhao, J Cao, X Luo, J Feng, XM Zhao (2021) Integration of multimodal data for deciphering brain disorders. *Annual Review of Biomedical Data Science*, 4:43-56.
- [J268] CC Huang, ET Rolls, CCH Hsu, JF Feng, CP Lin (2021) Extensive cortical connectivity of the human hippocampal memory system: beyond the 'what' and 'where' dual stream model. *Cerebral Cortex*, 31(10):4652-4669.
- [P43] L Du, et al. (2021) Depth-conditioned dynamic message propagation for monocular 3D object detection. *CVPR*, 454-463.
- [P42] SX Zheng, et al. (2021) Rethinking semantic segmentation from a sequence-to-sequence perspective with transformers. *CVPR*, 6877-6886.

- [J267] Y Dai, et al. (2021) Improved symptoms following bumetanide treatment in children aged 3 to 16 years with autism spectrum disorder: a randomized, double-blinded, placebo-controlled trial. *Science Bulletin*,66(15):1591-1598. doi: 10.1016/j.scib.2021.01.008. The news about the finding in China was viewed by 66+ M people, a staggering number!!!
- [J266] XC Zhou, NN Ma, BS Song, ZX Wu, GY Liu, LW Liu, LC Yu, JF Feng (2021) Optimal organization of functional connectivity networks for segregation and integration with large scale critical dynamics in human brains. *Frontiers in Computational Neuroscience*, 15:641335. doi: 10.3389/fncom.2021.641335.
- [J265] E Rolls, W Cheng, JF Feng (2021) Brain dynamics: synchronous peaks, functional connectivity, and its temporal variability. *Human Brain Mapping*, 42(9):2790-2801.
- [J264] XR Wu, et al. (2021) Symptom-based profiling and multimodal neuroimaging of a large preteenage population identifies distinct obsessive-compulsive disorder-like subtypes with neurocognitive differences. *Biological Psychiatry: CCNI*. doi: 10.1016/j.bpsc.2021.06.011.
- [J263] L Du, et al. (2021) A 12-genus bacterial signature identifies a group of severe autism children with differential sensory behavior and brain structures. *Clinical and Translational Medicine*, 11(2): e314. doi: 10.1002/ctm2.314.
- [J262] E Rolls, W Cheng, JF Feng (2021) Brain dynamics: the temporal variability of connectivity, and differences in schizophrenia and ADHD. *Translational Psychiatry*, 11(1): 70. doi: 10.1038/s41398-021-01197-x.
- [J261] TY Jia, et al. JF Feng (2021) Neural network involving medial orbitofrontal cortex and dorsal periaqueductal grey regulation in human alcohol abuse. *Science Advances*, 7(6):eabd4074. (IF=13)
- [J260] W Cheng, ET Rolls, W Gong, J Du, J Zhang, X Zhang, F Li, and JF Feng (2021) Sleep duration, brain structure, and psychiatric and cognitive problems in children. *Molecular Psychiatry*, 26(8): 3992-4003. doi: 10.1038/s41380-020-0663-2. Press Release Supplementary Material
- [J259] C Xie, et al. (2021) Reward vs Non-reward Sensitivity of the Medial vs Lateral Orbitofrontal Cortex Related to the Severity of Depressive Symptoms. *Biological Psychiatry: CCNI*, 6:259-269.
- [J258] L He, et al. (2021) The functional connectome predicts anxiety related to the COVID-19 pandemics. *American Journal of Psychiatry*, 178(6):530-540. (IF=13)

- **2020**
- [J257] T Yu, et al. (2020) Cannabis-associated psychotic-like experiences are mediated by developmental changes in the parahippocampal gyrus. *Journal of the American Academy Of Child And Adolescent Psychiatry*, 59 (5):642-649.
- [J256] ET Rolls, et al. (2020) Rapid rule-based reward reversal and the lateral orbitofrontal cortex. *Cerebral Cortex Communications*, 1 (1):tgaa087.
- [J255] MH Deng, et al (2020) International workshop on applications of probability and statistics to biology. *Quantitative Biology*, 8 (2):177-186.

- [J254] JY Chen, JF Feng, WL Lu (2020) A wiener causality defined by divergence. *Neural Processing Letters*, 53(3):1773-1794. (IF=2.891)
- [J253] ET Rolls, W Cheng, et al. JF Feng (2020) Beyond the disconnectivity hypothesis of schizophrenia. *Cerebral Cortex*, 30(3):1213-1233. (IF=5.043)
- [J252] CC Huang, Q Luo, et al. JF Feng (2020) Transdiagnostic and illness-specific functional dysconnectivity across schizophrenia, bipolar disorder, and major depressive disorder. *Biological Psychiatry-Cognitive Neuroscience and Neuroimaging*, 5(5):542-553. (IF=5.335)
- [J251] Z Wan, ET Rolls, W Cheng, JF Feng (2020) Sensation-seeking is related to functional connectivities of the medial orbitofrontal cortex with the anterior cingulate cortex. *Neuroimage*, 215. (IF=5.902)
- [J250] Q Luo, LL Zhang, et al. JF Feng (2020) Association between childhood trauma and risk for obesity: a putative neurocognitive developmental pathway. *BMC Medicine*, 18(1). (IF=6.782)
- [J249] LB Wang, W Cheng, et al. JF Feng (2020) Association of specific biotypes in patients with Parkinson disease and disease progression. *Neurology*, 95(11):e1445-e1460. (IF=8.77)
- [J248] WJ Duan; Q Yue, et al. (2020) A pH ratiometrically responsive surface enhanced resonance Raman scattering probe for tumor acidic margin delineation and image-guided surgery. *Chemical Science*, 11(17):4397-4402. (IF=9.346)
- [J247] C Shen, Q Luo, et al. JF Feng (2020) What is the link between attention-deficit/hyperactivity disorder and sleep disturbance? A multimodal examination of longitudinal relationships and brain structure using large-scale population-based cohorts. *Biological Psychiatry*, 88(6):459-469. (IF=12.095)
- [J246] XQ Ye, L Du, et al. (2020) Monocular 3D object detection via feature domain adaptation. *The European Conference on Computer Vision ECCV* (accepted).
- [J245] ZY Jiao, YL Lai, JJ Kang, WK Gong, L Ma, TY Jia, C Xie, W Cheng, A Heinz, S Desrivieres, G Schumann, I Consortium, FZ Sun, JF Feng (2020) Assessing study reproducibility through m2ri: A novel approach for large-scale high-throughput association studies. biorxiv doi: <https://doi.org/10.1101/2020.08.18.253740>.
- [J244] H Wang, et al. JF Feng (2020) Severe nausea and vomiting in pregnancy: psychiatric and cognitive problems and brain structure in children. *BMC Medicine*, 18:228. doi: 10.1186/s12916-020-01701-y.
- [J243] XH Gong, et al. (2020) Polygenic risk for autism spectrum disorder affects left amygdala activity and negative emotion in schizophrenia. *Translational Psychiatry*, 10(1):322.
- [J242] RQ Feng, et al. (2020) Hypertension is associated with reduced hippocampal connectivity and impaired memory. *EBioMedicine*, 61:103082.
- [J241] ET Rolls, W Cheng, JF Feng (2020) The orbitofrontal cortex: reward, emotion, and depression. *Brain Communications*, 2(2):fcaa196.

- [J240] H Chong, et al. (2020) Connections of the human orbitofrontal cortex and inferior frontal gyrus. *Cerebral Cortex*. 30(11):5830-5843. doi: 10.1039/cercor/bhaa160
- [P41] L Du, et al. (2020) 3DCFS: fast and robust joint 3d semantic-instance segmentation via coupled feature selection. *ICRA*. 1 May - 31 August, 2020. Paris, France.
- [P40] L Du, et al. (2020) Associate-3Ddet: perceptual-to-conceptual association for 3D point cloud object detection. *CVPR* (accepted).
- [J239] LL Zhang, et al. (2020) Symptom improvement in children with autism spectrum disorder following bumetanide administration is associated with decreased GABA/glutamate ratios. *Translational Psychiatry*, 10(1).
- [J238] HT Ruan (2020) Topographic diversity of structural connectivity in schizophrenia. *Schizophrenia Research*, 215:181-189.
- [J237] CC Huang, et al. (2020) Transdiagnostic and illness-specific foundational dysconnectivity across schizophrenia, bipolar disorder and major depression. *Biological Psychiatry: CNI*. 5 (5):542-553. doi: 10.1016/j.bpsc.2020.01.010.
- [J236] ET Rolls, W Cheng, J Du, D Wei, J Qiu, D Dai, Q Zhou, P Xie, and JF Feng (2020) Functional connectivity of the right inferior frontal gyrus and orbitofrontal cortex in depression. *Social Cognitive and Affective Neuroscience*, 15(1):75-86. doi: 10.1093/scan/nsaa014. Supplementary Material
- [J235] ET Rolls, Y Zhou, W Cheng, M Gilson, G Deco and JF Feng (2020) Effective connectivity in autism. *Autism Research*, 13:32-44.
- [J234] J Du, ET Rolls, W Cheng, Y Li, W Gong, J Qiu, and JF Feng (2020) Functional connectivity of the orbitofrontal cortex, anterior cingulate cortex, and inferior frontal gyrus in humans. *Cortex*, 123:185-199.
- [J233] ET Rolls, C Huang, CP Lin, JF Feng, and M Joliot (2020) Automated anatomical labelling atlas 3. *NeuroImage*, 206.
- [J232] NN Ma, ET Rolls, and JF Feng (2020) Brain avalanche rate in fMRI dynamics is related to attention and ADHD. *NeuroImage* (under revision).
- [J231] TY Jia, et al. (2020) Neurobehavioural characterisation and stratification of reinforcement-related behaviour. *Nature Human Behaviour*, 4(5):544-558.
- [J230]* C Shen, et al. (2020) Neural correlates of the dual pathway model for ADHD in adolescents. *American Journal of Psychiatry*, 177(9):844-854.
- [J229] LL Zhang, Q Luo, et al., F Li, JF Feng (2020) Frontopolar grey matter volume mediates both genetic and environmental influences on overweight and obesity. *BMC Medicine* (accepted).
- [J228]* C Shen, Q Luo, T Jia, et al. (2020) Neural correlates of the dual-pathway model for ADHD in adolescents. *The American journal of psychiatry*, 117(9):844-854. <https://doi.org/10.1176/appi.ajp.2020.19020183>.

- [P39] C Tao, et al. (2019) On fenchel mini-max learning. *Neural Information Processing Systems*. (NeuIPS 2019)
- [J227] L Han, et al. (2019). Surface-enhanced resonance raman scattering-guided brain tumor surgery showing prognostic benefit in rat models. *ACS applied materials & interfaces*, 11(17):15241–15250. <https://doi.org/10.1021/acsami.9b00227>.
- [P38] L Du, et al. (2019) SSF-DAN: Separated semantic feature vased domain adaption network for semantic segmentation. *ICCV 2019*.
- [P37] K Wu, B Du., M Luo, H Wen, Y Shen, JF Feng (2019) Weakly supervised brain lesion segmentation via attentional representation learning. *Medical Image Computing And Computer Assisted Intervention*. (MICCAI 2019)
- [J226]* Q Wang, et al. (2019) “Brain Connectivity Deviates by Sex and Hemisphere in the First Episode of Schizophrenia”—A Route to the Genetic Basis of Language and Psychosis?. *Schizophrenia Bulletin*, 45(2):484-494.
- [J225]* Z Liu, et al. and JF Feng (2019) Brain annotation toolbox: exploring the functional and genetic associations of neuroimaging results. *Bioinformatics*, 35(19):3771-3778.
- [J224]* J Sun, et al. (2019). Verbal creativity correlates with the temporal variability of brain networks during the resting state. *Cerebral Cortex*, 29(3):1047-1058. <https://doi.org/10.1093/cercor/bhy010>.
- [J223]* ET Rolls, et al. and JF Feng (2019) Functional connectivity of the anterior cingulate cortex in depression and in health. *Cerebral Cortex*, 29(8):3617-3630.
- [J222]* Q Luo et al. (2019). Association of a schizophrenia-risk nonsynonymous variant with putamen volume in adolescents: A voxelwise and genome-wide association study. *JAMA Psychiatry*, 76(4): 435–445. (IF = 17) <https://doi.org/10.1001/jamapsychiatry.2018.4126> widely reported around the world.
- [J221]* W Cheng, et al. and JF Feng (2019) Decreased brain connectivity in smoking contrasts with increased connectivity in drinking. *eLife*, 8. (IF = 9) [Warwick News] , [Fudan News] , [XinHua News] which is viewed by more than a million people, a record high for our papers.
- [P36] H Chao, Y He, J Zhang and JF Feng (2019) GaitSet: Regarding gait as a set for cross-view gait recognition. *National Conference On Artificial Intelligence*. (AAAI 2019, Oral presentation)

2018

- [P35] J Chen, JF Feng, and W Lu (2018) A wiener causality defined by relative entropy. *International Conference On Neural Information Processing*. (ICONIP 2018, is awarded as The Best Student Paper)
- [P34] C Tao, L Chen, R Henao, JF Feng and L Carin (2018) Chi-square generative adversarial network. *International Conference On Machine Learning*. (ICML 2018)
- [J220]* W Cheng, ET Rolls, H Ruan, JF Feng (2018) Functional connectivities in the brain that mediate the association between depressive problems and sleep quality. *JAMA Psychiatry*, 75(10): 1052–1061. <https://doi.org/10.1001/jamapsychiatry.2018.1941>

(IF=16.6), widely reported around the world: [Daily Mail], [Fudan News] , [Warwick News] , [TRT (Español)] , [People's Daily] , [TV] and many others.

- [J219]* W Cheng, et al. and JF Feng (2018) Functional connectivity of the precuneus in unmedicated patients with depression. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 3(12):1040-1049.
- [P33] C Cheng, et al. Dual skipping networks. *Computer Vision And Pattern Recognition*. (CVPR 2018)
- [J218]* YY Zhou, CY Tao, WL Lu, JF Feng (2018) An asymptotic theory for cross-correlation between auto-correlated sequences and its application on neuroimaging data. *Journal of Neuroscience Methods*, 304:52-65. doi:10.1016/j.jneumeth.2018.04.009.
- [J217]* W Cheng, et al. and JF Feng (2018) Increased functional connectivity of the posterior cingulate cortex with the lateral orbitofrontal cortex in depression. *Translational Psychiatry*, 8(1).
- [J216]* Z Liu, et al. (2018) Distinguishable brain networks relate disease susceptibility to symptom expression in schizophrenia. *Human Brain Mapping*, 39(9): 3503-3515.
- [J215]* Z Liu, et al. and JF Feng (2018) Neural and genetic determinants of creativity. *NeuroImage*, 174:164-176.
- [J214]* W Cheng, et al. and JF Feng (2018). Functional connectivity of the human amygdala in health and in depression. *Social Cognitive and Affective Neuroscience*, 13(6):557-568.
- [J213]* W Gong, et al. and JF Feng (2018) Statistical testing and power analysis for brain-wide association study. *Medical Image Analysis*, 47:15-30.
- [J212]* X Bai, et al. (2018) Deep sequencing of HBV pre-S region reveals high heterogeneity of HBV genotypes and associations of word pattern frequencies with HCC. *PLOS Genetics*, 14(2).
- [J211]* W Cheng, et al. and JF Feng (2018). Voxel-based, brain-wide association study of aberrant functional connectivity in schizophrenia implicates thalamocortical circuitry. *Nature Partner Journal Schizophrenia*, 4. doi:10.1038/npjSchz.2015.16. Supplementary materials; Featured Article.

2017

- [J210]* Q Luo, et al. and JF Feng (2017) The functional architecture of the brain underlies strategic deception in impression management. *Frontiers in Human Neuroscience*, 11:513-513. <https://doi.org/10.3389/fnhum.2017.00513>.
- [J209]* ET Rolls, et al. and JF Feng (2017). Effective connectivity in depression. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 3(2):187-197.
- [J208]* ET Rolls, et al. and JF Feng (2017). Individual differences in schizophrenia. *British Journal of Psychiatry Open*, 3(6):265-273.

- [J207]* W Deng, et al. and JF Feng (2017). Separate neural systems for behavioral change and for emotional responses to failure during behavioral inhibition. *Human Brain Mapping*, 38(7):3527-3537.
- [J206]* W Cheng, et al. and JF Feng (2017). Functional connectivity decreases in autism in emotion, self, and face circuits identified by knowledge-based enrichment analysis. *NeuroImage*, 148:169-178. doi: 10.1016/j.neuroimage.2016.12.068.
- [J205]* C Tao, TE Nichols, X Hua, CR Ching, ET Rolls, PM Thompson, JF Feng (2017) Generalized reduced rank latent factor regression for high dimensional tensor fields, and neuroimaging-genetic applications. *NeuroImage*, 144:35-57. <http://dx.doi.org/10.1016/j.neuroimage.2016.08.027>.
- [J204] S Zhou, P Ji, Q Zhou, JF Feng, J Kurths, W Lin (2017) Adaptive elimination of synchronization in coupled oscillator. *New Journal of Physics*, 19(8).
- [J203] T Li, et al. and JF Feng (2017) Brain-wide analysis of functional connectivity in first-episode and chronic stages of schizophrenia. *Schizophrenia Bulletin*, 43(2):436-448.

2016

- [J202]* W Cheng, ET Rolls, et al. and JF Feng (2016) Medial reward and lateral non-reward orbitofrontal cortex circuits change in opposite directions in depression. *Brain*, 139:3296-3309. doi: 10.1093/brain/aww255, IF = 10. [Psychology Today] , [Fudan news] , [Warwick news] , [BBC Focus] , [Successful rTMS treatment]
- [J201]* CY Tao, JF Feng (2016) Canonical kernel dimension reduction. *Computational Statistics and Data Analysis*, 107:131—148.
- [P32] N Politi, JF Feng and WL Lu (2016) Comparing filtering data assimilation methods for parameter estimation in single neuron model. *IJCNN*.
- [J200]* J Zhang, W Cheng, ZW Liu, X Lei, Y Yao, B Becker, YC Liu, K Kendrick, GM Lu, JF Feng (2016) Neural, electrophysiological and anatomical basis of brain-network variability and its characteristic changes in mental disorders. *Brain*, 139:2307-2321. doi: 10.1093/brain/aww143, IF = 10. [Scientific Commentary from Bassett DS], [Daily Mail] , [Chinese version] , [Warwick News] , [Journal Cover story] , [Front page in GuangMing Daily] and many others.
- [J199]* SX Guo, L Palaniyappan, PF Liddle, JF Feng (2016) Dynamic cerebral reorganisation in the pathophysiology of schizophrenia: A mri derived cortical thickness study. *Psychological Medicine*, 46(10):2201-2214. doi:10.1017/S0033291716000994 [Forbes news]
- [J198]* Q Wang, W Cheng, et al. (2016) The CHRM3 gene is implicated in abnormal thalamo-orbital frontal cortex functional connectivity in first-episode treatment-naive patients with schizophrenia. *Psychological Medicine*, 46(7):1523-1534. IF=5.9
- [J197]* WD Pu, Q Luo, et al. (2016) Failed cooperative, but not competitive, interaction between large-scale brain networks impairs working memory in schizophrenia. *Psychological Medicine*, 46(6):1211-1224. doi:10.1017/S0033291715002755.

- [J196]* CY Tao, JF Feng (2016) Nonlinear association criterion, nonlinear granger causality and related issues with applications to neuroimage studies. *J. Neurosci Methods*, 262:110-132. doi:10.1016/j.jneumeth.2016.01.003.
- [J195]* HR Cui, J Zhang, et al. (2016) Differential alterations of resting-state functional connectivity in generalized anxiety disorder and panic disorder. *Human Brain Mapping*, 37(4):1459-1473. doi:10.1002/hbm.23113.
- [J194] TY Jia, et al. (2016) The neural basis of reward anticipation and its genetic determinants. *PNAS*, 13(14):3879-3884.
- [J193] KC Kadosh, et al. (2016) Using real-time fMRI to influence differential effective connectivity in the adolescent emotion regulation network. *NeuroImage*, 125:616-626. doi:10.1016/j.neuroimage.2015.09.070.

2015

- [J192] SA Ojelade, et al. (2015) Rsu1 regulates ethanol consumption in drosophila and humans. *PNAS*, 112(30):e4085-e4093. doi:10.1073/pnas.1417222112.
- [J191]* Y Yao, et al. and Jianfeng Feng (2015) Variability of structurally constrained and unconstrained functional connectivity in schizophrenia. *Human Brain Mapping*, 36(11):4529-4538. doi:10.1002/hbm.22932.
- [J190] J Liu, Y Mo, T Ge, et al. (2015) Allelic variation at 5-HTTLPR is associated with brain morphology in a Chinese population. *Psychiatry Research-neuroimaging*, 226(1):399-402.
- [J189]* X Gan, B Xu, X Ji, W Lu, D Waxman, JF Feng (2015) A statistical approach for detecting common features. *Journal of Neuroscience Methods*, 247:1-12.
- [J188]* W Cheng, ET Rolls, HG Gu, J Zhang, JF Feng (2015) Autism: Reduced connectivity between cortical areas involved in face expression, theory of mind, and the sense of self. *Brain*, 138:1382--1393. doi: 10.1093/brain/awv051. Suppl. Materials, IF=10.3, Editor's Choice, Warwick Press Release, Fudan News, Many others.
- [J187] SX Guo, et al. (2015) Cortical folding and the potential for prognostic neuroimaging in schizophrenia. *B J Psychiatry*, 207(5): 458-459. doi:10.1192/bjp.bp.114.155796. IF=7.3
- [J186]* J Zhang, KM Kendrick, GM Lu, JF Feng (2015) The fault lies on the other side: altered brain functional connectivity in psychiatric disorders is mainly caused by counterpart regions in the opposite hemisphere. *Cerebral Cortex*, 25(10):3475-3486. doi:10.1093/cercor/bhu173. IF=8.3
- [J185] S Desrivieres, et al. and JF Feng, G Schumann (2015) Single nucleotide polymorphism in the neuroplastin locus associates with cortical thickness and intellectual ability in adolescents. *Molecular Psychiatry*, 20(2):263-274. doi:10.1038/mp.2013.197. IF=15

2014

- [J184]* XH Gong, WL Lu, KM Kendrick, WD Pu, C Wang, L Jin, ZN Liu, JF Feng (2014) A brain-wide association study of disc1 genetic variants reveals a relationship with the structure and functional connectivity of the precuneus in schizophrenia. *Human Brain Mapping*, 35(11):5414-5430. doi:10.1002/hbm.22560. IF=6.9
- [J183]* W Pu, et al. (2014) Altered functional connectivity links in neuroleptic-naïve and neuroleptic-treated patients with schizophrenia, and their relation to symptoms including volition. *NeuroImage: Clinical*, 6:463-474.
- [J182] T Ge, et al. (2014) Achieving modulated oscillations by feedback control. *Phys. Rev. E*, 90(2).
- [J181] Y Yu, J Karbowski, RNS Sachdev, JF Feng (2014) Effect of temperature and glia in brain size enlargement and origin of allometric body-brain size scaling in vertebrates. *BMC Evolutionary Biology*, 14.
- [J180] L Cao, S Guo, et al. (2014) Aberrant functional connectivity for diagnosis of major depressive disorder: a discriminant analysis. *Psychiatry and clinical neurosciences*, 68(2):110-119.
- [J179] Z Zhang, et al. (2014) Frequency-dependent amplitude alterations of resting-state spontaneous fluctuations in idiopathic generalized epilepsy. *Epilepsy Research*, 108(5):853-860.
- [J178]* SX Guo, L Palaniyappan, B Yang, ZN Liu, ZM Xue, JF Feng (2014) Anatomical distance affects functional connectivity in patients with schizophrenia and their siblings. *Schizophrenia Bulletin*, 40(2):449-459. doi:10.1093/schbul/sbt163. IF=8.5
- [J177] E Loth, et al. JF Feng, G Schumann (2014) Effect of oxytocin receptor gene variants and stressful experiences on ventral striatal activity and risk for social-affective problems. *Biol. Psychiatry*, 76(5):367-376. doi:10.1016/j.biopsych.2013.07.043. IF=9.2
- [J176]* SX Guo, KM Kendrick, RJ Yu, WY Isaac Tseng, JFvFeng (2014) Key functional circuitry altered in schizophrenia involves parietal regions associated with sense of self. *Human Brain Mapping*, 35(1):123-139. doi:10.1002/hbm.22162.

2013

- [J175] T Ge, G Schumann, JF Feng (2013) Imaging genetics: Towards a discovery neuroscience. *Quantitative Biology*, 1(4):227-245. doi:10.1007/s40484-013-0023-1.
- [J174]* HJ Tao, SX Guo, T Ge, KM Kendrick, ZM Xue, ZN Liu, JF Feng (2013) Depression uncouples brain hate circuit. *Molecular Psychiatry*, 18(1):101-111. doi:10.1038/mp.2011.127. [Suppl. materials] , Nature Publishing Group Press Release , CNN news , Daily Mail , Time , MSN , ScienceDaily , Scientific American , Xinhua, MarcoDaily, SoHu, Chinese Youngth Daily, Sina, China Daily, XinMinNews, 163, Easter network Chinese People's Radio, ifeng, KeXueWang, WenHuiBao, GuangMingRiBao, More than 1000 others around the world. (IF=15.5), Most viewed paper in the Journal, 2012 Newspaper of the American Psychiatric Association.
- [J173]* WL Lu, JF Feng, D Waxman, and SI Amari (2013) Achieving precise mechanical control in intrinsically noisy systems. *New J. Physics*, 15: 063012. IF=4.1

- [J172]* Y Yao, WL Lu, B Xu, CB Li, CP Lin, D Waxman, and JF Feng (2013) The increase of the entropy of the human brain with age. *Scientific Report*, 3.
- [J171]* Q Luo, et al. (2013) Attention-dependent modulation of cortical taste circuits revealed by Granger causality with signal-dependent noise. *PLoS Comp Biol*, 9(10): e1003265. doi:10.1371/journal.pcbi.1003265. IF=5.3
- [J170]* SX Guo, KM Kendrick, J Zhang, M Broome, ZN Liu, JF Feng (2013) Brain-wide functional inter-hemispheric disconnection is a biomarker for schizophrenia and distinguishes it from depression. *NeuroImage*, 2:818-826. doi:10.1016/j.nicl.2013.06.008.
- [J169] M Li, T Ge, JF Feng, B Su (2013) SLC6A15 rs 1545853 and depression: implications from brain imaging data. *American Journal of Psychiatry*, 170(7):805-805. doi:10.1176/appi.ajp.2013.12111458. IF=14
- [P31] G Leng, JF Feng (2013) Modelling the Milk-Ejection Reflex. *Computational Endocrinology*.
- [J168]* SX Guo, Y Yu, J Zhang, JF Feng (2013). A reversal coarse-grained analysis with applications to a circuit of superior frontal gyrus, insula and putamen in depression. *Brain and Behaviour*, 3(6):637-648. doi:10.1002/brb3.173. IF=4.9
- [J167]* Q Luo, WL Lu, W Cheng, PA Valdes-Sosa, XT Wen, MZ Ding, JF Feng (2013) Spatio-temporal Granger causality: a new framework. *NeuroImage*, 79:241-263. IF=5.9

2012

- [J166] MD Forrest, M J Wall, DA Press, JF Feng (2012) The sodium-potassium pump controls the intrinsic firing of the cerebellar purkinje neuron. *PLoS One*, 7(12): e51169. doi:10.1371/journal.pone.0051169.
- [P30] XJ Zhang, JF Feng (2012) Computational modelling of neuronal networks. *Encyclopedia of Biophysics*, 344-353.
- [J165] T Ge, JF Feng, D Hibar, P Thompson, T Nichols (2012) Increasing power for voxel-wise genome-wide association studies: The random field theory, least square kernel machines and fast permutation procedures. *NeuroImage*, 63:858-873.
- [J164] W Cheng, J Zhang, XX Ji, JF Feng (2012) Individual classification of ADHD patients by integrating multiscale neuroimaging markers and advanced pattern recognition techniques. *Frontiers in Systems Neuroscience*, 6(58). doi: 10.3389/fnsys.2012.00058.
- [J163]* Y Wu, WL Lu, W Lin, G Leng, JF Feng (2012) Bifurcations of emergent bursting in a neuronal network. *PLoS One*, 7(6):e38402. doi:10.1371/journal.pone.0038402.
- [J162]* J Zhang, XJ Zhang, ZG Wang, ZQ Zhang, WL Lu, GM Lu, JF Feng (2012) Pattern classification of large-scale functional brain networks: identification of informative neurobiological markers for epilepsy. *PLoS One*, 7(5):e36733. doi: 10.1371/journal.pone.0036733.
- [J161]* XJ Zhang, et al., JF Feng (2012) A computational study on theta/gamma dual oscillations in learning and phase coding. *PLoS One*, 7(6):e36472.

- [J160]* D Vavoulis, VA Straub, JAD Aston, JF Feng (2012) A self-organising state-space-model approach for parameter estimation in Hodgkin-Huxley-type models of single neurones. *PLoS Comp. Biol.*, 8(3):e1002401.
- [J159] B Yang, JM Liu, JF Feng (2012) On the spectral characterization and scalable mining of network communities. *IEEE T. Knowledge and Data Engineering*, 24(2):326-337.
- [J158] T Ge, W Lin, and JF Feng (2012) Invariance principles allowing of non-lyapunov functions for estimating attractor of discrete dynamical systems. *IEEE Transactions on Automatic Control*, 57(2):500-505.
- [J157]* T Ge, JF Feng, F Grabenhorst, E Rolls (2012) Componential Granger causality, and its application to identifying the source and mechanisms of the top-down biased activation that controls attention to affective vs sensory processing. *NeuroImage*, 59(2):1846-1858. doi: 10.1016/j.neuroimage.2011.08.047. (IF=5.9)

2011

- [J156]* Q Luo, T Ge, JF Feng (2011) Causality with signal-dependent noise. *NeuroImage*, 57:1422-1429. doi: 10.1016/j.neuroimage.2011.05.054. (IF=5.9)
- [J155] T Webb, E Rolls, G Deco, JF Feng (2011) Noise in the brain produced by graded firing rate representations. *PLoS One*, 6(9): e23630.
- [P29]* T Ge, JF Feng (2011) Granger Causality: Its Foundation and Applications in Systems Biology. *Handbook of Research on Computational and Systems Biology*, 511-532.
- [J154]* J Kang, B Xu, C Hennessy, P Fraser, JF Feng (2011) A dynamical model reveals gene colocalizations in nucleus. *PLoS Comp. Biol.*, 7(7): e1002094. doi: 10.1371/journal.pcbi.1002094.
- [J153] V Erokhin, T Berzina, P Camorani, A Smerieri, D Vavoulis, JF Feng, and MP Fontana (2011) Material memristive device circuits with synaptic plasticity: Learning and memory. *BioNanoScience*, 1:24-30. doi:10.1007/s12668-011-0004-7.
- [J152]* KM Kendrick, Y Zhan, H Fischer, AU Nicol, X Zhang, JF Feng (2011) Learning alters theta amplitude, theta-gamma coupling and neuronal synchronization in inferotemporal cortex. *BMC Neuroscience*, 12(1):55-55.
- [J151] S Durrent, YM Kang, NJ Stocks, JF Feng (2011) Suprathreshold Stochastic Resonance in Neural Processing Tuned By Correlation. *Physical Review E*, 84(1): 011923.

2010

- [J150] J Zhang, K Zhang, JF Feng, M Small (2010) Understanding rhythmic dynamics and synchronization in human gait through dimensionality reduction. *PLoS Comp. Biol.*, 6(12): e1001033. (selected as Featured Research, IF=5.9)
- [J149]* A Smerieri, ET Rolls, JF Feng (2010) Decision time, slow inhibition, and theta rhythms. *J. Neurosci.*, 30(42):14173-14181. (IF=7.5)

- [J148] HF Ma, B Xu, W Lin, JF Feng (2010) Adaptive identification of time delays in nonlinear dynamical models. *Physical Review E*, 82(6):066210.
- [J147]* E Rossoni, J Kang, JF Feng (2010) Controlling precise movement with stochastic signals. *Biol. Cybern.*, 102(5):441-450. doi:10.1007/s00422-010-0377-7.
- [J146] D Vavoulis, ES Nikitin, I Kemenes, V Marra, JF Feng, PR Benjamin and G Kemenes (2010) Balanced plasticity and stability of the electrical properties of a molluscan modulatory interneuron after classical conditioning: a computational study. *Frontiers in Behaviour Neuroscience*, 4.
- [J145] V Marra, I Kemenes, D Vavoulis, JF Feng, M O'shea and PR Benjamin (2010) Role of tonic inhibition in associative reward conditioning in *Lymnaea*. *Frontiers in Behaviour Neuroscience*, 4. doi:10.3389/fnbeh.2010.00161.
- [P28]* SX Guo, C Ladroue and JF Feng (2010) Granger causality: theory and applications. *Frontiers in Computational and Systems Biology*, 15:83-111, doi: 10.1007/978-1-84996-196-7_5.
- [P27] KM Kendrick, JF Feng (2010) Neural encoding principles in face perception revealed using non-primate models. *Handbook of Face Perception Oxford University Press*, ed. Calder AJ, Rhodes G, Johnson MH, and Haxby JV.
- [J144] W Lin, HF Ma, JF Feng, GR Chen (2010) Locating unstable periodic orbits: When adaptation integrates into delayed feedback control. *Physical Review E*, 82(4): 046214 .
- [P26]* WL Lu, JF Feng (2010) On gaussian random neuronal field model: Moment neuronal network approach. *IJCNN*.
- [P25]* T Ge, WL Lu, JF Feng (2010) Find synaptic topology from spike trains neural networks. *The 2010 International Joint Conference on Digital Object Identifier (IJCNN)*. doi:10.1109/IJCNN.2010.5596299.
- [J143]* ZL Zou, C Ladroue, SX Gou, JF Feng (2010) Identifying interactions in the time and frequency domains in local and global networks - A Granger Causality Approach. *BMC Bioinformatics*, 11:337. (IF =3.4)
- [J142]* J Kang, HPC Robinson, JF Feng (2010) Minimal mechanism for decoding input temporal frequencies-modelling and experimental approach. *PLoS One*, 5(3):e9608. (IF=4.3)
- [J141]* J Kang, JH Wu, A Smerieri, JF Feng (2010) Weber's law implies neural discharge more regular than a Poisson process. *Eur. J. Neurosci.*, 31: 1006-1018. (IF=3.4)
- [J140]* WL Lu, E Rossoni, JF Feng (2010) Toward a theory of random neuronal field model. *NeuroImage*, 52:913-933. doi: 10.1016/j.neuroimage.2010.02.075. (IF=5.7)
- [J139]* XJ Zhang, G Leng, JF Feng (2010) Coherent peptide-mediated activity in a neuronal network controlled by subcellular signaling pathway: Experiments and modeling. *J. Biotechnology*, 149(3):215-225. doi:10.1016/j.jbiotec.2010.01.003. (IF=2.7)

- [J138]* T Ge, K Kendrick, JF Feng (2009) A unified dynamic and granger causal model approach demonstrates brain hemispheric differences during face recognition learning. *PLoS Comp. Biol.*, 5(11): e1000570. doi:10.1371/journal.pcbi.1000570. (IF=5.9)
- [J137]* JH Wu**, JL Sinfield**, JF Feng (2009) Impact of environmental inputs on reverse-engineering approach to network structures. *BMC Systems Biology*, 3:113. (**=co-first author, IF=3.7)
- [J136]* C Ladroue**, SX Guo**, K Kendrick, J.F. Feng (2009) Beyond element-wise interactions: defining group-to-group interactions for biological processes. *PLoS One*, 4(9): e6899. doi:10.1371/journal.pone.0006899, **=co-first author.
- [J135]* CL Zou, KM Kendrick, JF Feng (2009) The fourth way: Granger causality is better than the three other reverse-engineering approaches. *Comments on Cell*, 137: 172-181. A Yeast Synthetic Network for In Vivo Assessment of Reverse-Engineering and Modeling Approaches Cell.
- [J134] I Ashmole, DV Vavoulis, PJ Stansfeld, JF Feng, MJ Sutcliffe, PR Stanfield (2009) The response of the tandem pore potassium channel TASK-3 (K2P9.1) to voltage: gating at the cytoplasmic mouth. *J. Physiology*, 587(20):4769-4783. doi: 10.1113/jphysiol.2009.175430. Cover Image (IF=4.6)
- [J133]* KM Kendrick, Y Zhan, H Fischer, AU Nicol, XJ Zhang, JF Feng (2009) Learning alters theta-nested gamma oscillations in inferotemporal cortex. *Nature Precedings*, doi:https://doi.org/10.1038/npre.2009.3151.1.
- [J132]* CL Zou, JF Feng (2009) Granger causality vs. Dynamic bayesian network inference: A comparative study. *BMC Bioinformatics*, 10. doi:10.1186/1471-2105-10-122. (most viewed paper in past 30 days in the journal, flagged as 'highly accessed paper', IF=3.8)
- [J131]* JF Feng, DY Yi, R Krishna, SX Guo, V Buchanan-Wollaston (2009) Listen to genes: dealing with microarray data in the frequency domain. *PLoS One*, 4(4): e5098. doi: 10.1371 / journal.pone. 0005098.
- [J130]* XJ Zhang, GQ You, TP Chen, JF Feng (2009) Readout of spike waves in a microcolumn. *Neural Computation*, 21:3079-3105. (IF=2.2)
- [J129] YQ Li, P Namburi, ZLYu, CT Guan, JF Feng, ZH Gu (2009) Voxel selection in fMRI data analysis based on sparse representation. *IEEE T. Biomedical Engineering*, 56(10):2439-2451. (IF=1.6)
- [J128] JF Feng, M Shcherbina, B Tirozzi (2009) Stability of the dynamics of an asymmetric neural network. *Communications On Pure And Applied Analysis*, 8(2): 655-671.

2008

- [J127]* SX Guo, JFH Wu, MZ Ding, JF Feng (2008) Uncovering interactions in the frequency domain. *PLoS Comput. Biol.*, 4(5): e1000087. doi:10.1371/journal.pcbi.1000087 (selected as Featured Research, IF=6.2).
- [J126]* E Rossoni, JF Feng, B Tirozzi, D Brown, G Leng, and F Moos (2008) Synchronous bursting of oxytocin neurons; emergent behaviour of a model. *PLoS Comp. Biol.*, 4(7):e1000123. doi:10.1371/journal.pcbi.1000123. (see also BBC News , Washington Post ,

Scientific American , Reuters , BBC Radio 4 , Daily Telegraph , Daily Mail , National Post (Canada) , ANSA (in Italy) , Newstrack (India) , Science Daily , National Post (Canada) , Shanghai Daily , Malaysian Daily Star , Mexico , Chile I Think , Spain , Warwick Univ. , +more than 100 others , IF=6.2)

- [J125]*C Zhou, L Bowler, JF Feng (2008) A machine learning approach to explore the spectra intensity pattern of peptides using tandem mass spectrometry data. *BMC Bioinformatics*, 9: 325. (tagged as 'highly accessed paper', IF=3.5)
- [J124] ES Nikitin, DV Vavoulis, JF Feng, M O'Shea, PR Benjamin, G Kemenes (2008) Persistent sodium current is a non-synaptic substrate for long-term memory. *Current Biology*, 18(16): 1221-1226. (IF=10.5), also selected in F1000 Biology
- [J123] M Qian, XJ Zhang, R Wilson, JF Feng (2008) Efficiency of brownian motors in terms of entropy production rate *euophys. Letts.*, 84:10014.
- [J122] SX Guo, A Seth, K Kendrick, JF Feng (2008) Partial Granger causality: eliminating exogenous inputs and latent variables. *J. Neurosci. Methods*, 172(1):79-83.
- [J121] Y Zhan, SX Guo, K Kendrick, JF Feng (2008) Filtering noise for synchronised activity in multi-trial electrophysiology data using wiener and kalman filters. *Biosystems*, 96(1): 1-13.
- [J120]*P Rowcliffe, JF Feng (2008) Training spiking neuronal networks with applications in engineering tasks. *IEEE Transactions On Neural Networks*, 19(9):1626-1640.

2007

- [J119] J Wu , X Liu, JF Feng (2007) Detecting causality between different frequencies. *Journal of Neuroscience Methods*, 167(2):367-375.
- [J118] JH Wu, K Kendrick, JF Feng (2007) A novel approach to detect hot-spots in large-scale multivariate data. *BMC Bioinformatics*, 8:331. doi:10.1186/1471-2105-8-331.
- [J117] DV Vavoulis, VA Straub, I Kemenes, JF Feng, P Benjamin (2007) Dynamic control of a central pattern generator circuit: a computational model of the snail feeding network. *European Journal of Neuroscience*, 25(9): 2805-2818.
- [J116] JF Feng, M Shcherbina, B Tirozzi ,G You (2007) Optimal movement control models of Langevin and Hamiltonian types. *Mathematical and Computer Modelling*, 46 (5-6):680-698.
- [J115] C Huang, L Huang, JF Feng, et al.(2007) Hopf bifurcation analysis for a two-neuron network with four delays. *Chaos, Solitons and Fractal*, 34 (3): 795-812.
- [J114] P Williams, S Li, JF Feng, S Wu (2007) A geometrical method to improve performance of the support vector machine. *IEEE Transaction on Neural Networks*, 18 (3): 942-947.
- [J113] S Wang, Y Chen, M Ding, JF Feng, et al. (2007) Revealing the dynamic causal interdependence between neural and muscular signals in Parkinsonian tremor. *Journal of the Franklin Institute-Engineering and Applied Mathematics*, 344(3-4):180-195.

- [J112] J Wu, K Kendrick, JF Feng (2007) Detecting correlation changes in electrophysiological data. *Journal of Neuroscience Methods*, 161(1): 155-165.
- [J111] PM Horton, AU Nicol, KM Kendrick, JF Feng (2007) Spike sorting based upon machine learning algorithms (SOMA). *Journal of Neuroscience Methods*, 160(1): 52-68.
- [J110] E Rossoni, JF Feng (2007) Decoding spike train ensembles: tracking a moving stimulus. *Biological Cybernetics*, 96(1):99-112.

2006

- [J109] Y Zhan, D Halliday, X Liu, JF Feng (2006) Detecting the time-dependent coherence between non-stationary electrophysiological signals --A combined statistical and time-frequency approach. *Journal Neuroscience Methods*, 156(1-2):322-332.
- [J108] S Durrant, JF Feng (2006) Negatively-correlated firing: the functional meaning of lateral inhibition within cortical columns, *Biological Cybernetics*, 95(5):431-453.
- [J107] PM Horton, AU Nicol, KM Kendrick, JF Feng (2006) Spike sorting based upon machine learning algorithms (SOMA). *Journal of Neuroscience Methods*, 160(1): 52-68.
- [J106] X Xiang, X Yang, Y Deng, JF Feng (2006) Identifying transition rates of ionic channels of star-graph branch type. *Journal of Physics A-Mathematical and General*, 39(30):9477-9491.
- [J105] JF Feng, V Jirsa, M Ding (2006) Synchronization in networks with random interactions: theory and applications. *Chaos*, 16(1):015109.
- [J104] B Gaillard, H Buxton, JF Feng (2006) Population Approach to a Neural Discrimination task. *Biological Cybernetics*, 94(3):180-191.
- [J103] JF Feng, YC Deng, E Rossoni (2006) Dynamics of moment neuronal networks, *Phys. Rev. E.*, 73.
- [J102] P Rowcliffe, JF Feng and H Buxton (2006) Spiking perceptrons. *IEEE Transactions on Neural Networks*, 17(3):803-807.
- [J101] N Chen, W Liu and JF Feng (2006) Sufficient and necessary condition for the convergence of stochastic approximation algorithms. *Statistics & Probability Letters*, 76(2):203-210.
- [J100] E Rossoni, and JF Feng (2006) A nonparametric approach to extract information from interspike interval data. *J. Neurosci. Methods*, 150(1):30-40.

2005

- [J99] E Rossoni, Y Chen, M Ding and JF Feng (2005) Stability of synchronous oscillations in a system of HH neurons with delayed diffusive and pulsed coupling *Physical Review E*, 71(6):061964.
- [J98] D Waxman, and JF Feng (2005) Implications of long tails in the distribution of mutant effects. *Physica D-Nonlinear Phenomena*, 206(3-4): 265-274.

- [J97] PM Horton, L Bonny, AU Nicol, KM Kendrick and JF Feng (2005), Applications of multi-variate analysis of variances (MANOVA) to multi-electrode array data. *146(1)*: 22-41.
- [J96] E Rossoni, G Leng, and JF Feng (2005) Modelling the milk-ejection reex, *Neurocomputing*.
- [J95] B Gaillard, JF Feng (2005) Modelling a visual discrimination task. *Neurocomputing*, 65-66:203-209.
- [J94] KW Lee, H Buxton and JF Feng (2005) Cue-guided search: a computational model of selective attention. *IEEE Transactions on Neural Networks*, 16(4): 910-924.

2004

- [J93] JF Feng, E Ferraro and B Tirozzi (2004) Impact of temperature and pH value on the stability of hGHRH: an MD approach. *Mathematical and Computer Modelling*, 41(10):1157-1170.
- [J92] Z Albo, et al (2004) Is partial coherence a viable technique for identifying generators of neural oscillations? *Biological Cybernetics*, 90(5):318-326.
- [J91] Y Chen, G Rangarajan, JF Feng and M Ding (2004) Analyzing multiple nonlinear time series with extended Granger causality. *Physics Letter A*, 324(1):26-35.
- [J90] G Li and JF Feng (2004) Stimulus-evoked synchronization in neuronal models *Computational Neuroscience: Trends in Research*, 203-208.
- [J89] JF Feng, X Chen, HC Tuckwell and E Vasilaki (2004). Some Optimal Stochastic Control Problems in Neuroscience-a Review. *Modern Physics Letters B*, 18(21-22):1067-1085.
- [J88] D Waxman and JF Feng (2004) Application of a generalised Levy residence time problem to neuronal dynamics. *Europhysics Letters*, 65(3):434-439.
- [J87] Y Deng, M Ding and JF Feng (2004) Synchronization in stochastic coupled systems, *Journal of Physics A: Mathematical and General*, 37(6):2163-2173.
- [J86] E Rossoni, G Leng and JF Feng (2004) Modelling phasic firing in vasopressin neurones. *Neurocomputing*.
- [J85] JF Feng and MZ Ding (2004) Reading spikes in a spiking neuronal network (movie) *J. Phys. A.*, 37:5713-5728.
- [J84] JF Feng and D Brown (2004) Decoding input signals in time domain--A model approach. *Journal of Computational Neuroscience*, 16(3):237-249.
- [J83] JF Feng, G Tartaglia and B Tirozzi (2004) A note on the minimum variance theory and beyond. *Journal of Physics A-Mathematical and General*, 37(17):4685-4700.

2003

- [J82] JF Feng and HC Tuckwell (2003) Optimal control of neuronal activity. *Physical Review Letters*, 91(1):018101.

- [J81] JF Feng, and GB Li (2003) The relationship between neuronal calcium concentration and firing rate during stochastic synaptic inputs. *J. Theoretical Biology*, 223(3):367-375.
- [J80] JF Feng, K Zhang and Y Luo (2003) A study on an optimal movement model. *Journal of Physics A-Mathematical and General*, 36(27):7469-7484.
- [J79] H Vassilakis, JF Feng and H Buxton (2003) Temporal Album. *IEEE Transactions on Neural Networks*, 14(2):439-43
- [J78] Y Deng, S Peng, M Qian and JF Feng (2003) Identifying transition rates of ion channels via observations of a single state. *Journal of Physics A-Mathematical and General*, 36(5):1159-1212.
- [J77] A Davison, JF Feng and D Brown (2003) Dendrodendritic inhibition and odour-induced synchronization in a detailed olfactory bulb model. *Journal of Neurophysiology*, 90(3):1921-1935.
- [J76] F Liu, JF Feng and W Wang (2003) Impact of Poisson synaptic inputs with a changing rate on weak signal processing. *Europhysics Letters*, 64(1):131-136.
- [J75] JF Feng (2003) Effects of correlated and synchronized stochastic inputs to leaky integrator neuronal model. *Journal of Theoretical Biology*, 222(2):151-162.
- [J74] JF Feng (2003) The Minimum-Variance Theory Revisited. *Lecture Notes in Computer Science*, 2686:62-69.
- [J73] Y Deng, F Liu, P Williams and JF Feng (2003) Neuronal discrimination capacity. *Journal of Physics A-Mathematical And General*, 36(50):12379-12398.
- [J72] JF Feng, YL Sun, H Buxton (2003) Training integrate-and-fire neurons with the Informax principle II. *IEEE Transactions On Neural Networks*, 14(2):326-336.

2002

- [J71] JF Feng and G Li (2002) Impact of geometrical structures on the output of neuronal models - a theoretical and numerical analysis. *Neural Computation*, 14(3):621-640.
- [J70] G Wei, P Clifford, and JF Feng (2002) Population death sequences and Cox processes driven by interacting Feller diffusions. *Journal of Physics A*, 35(44):9309-9331.
- [J69] P Clifford, NJB Green, JF Feng and G Wei (2002) Probability representations of a class of two-way diffusions. *Journal of Physics A-Mathematical and General*, 35(28):5795-5805.
- [J68] JF Feng, H Buxton (2002) Training the integrate-and-fire model with the Informax principle I. *Journal of Physics A Mathematical and General*, 35(10):2379-2394.
- [J67] JF Feng, F Liu F (2002) A modelling study on discrimination tasks. *Biosystems*, 67(1-3):67-73.
- [J66] JF Feng and K Zhang (2002) Towards A Mathematical Foundation of Minimum-variance Theory. *Journal of Physics A-Mathematical and General*, 35(34):7287-7304.
- [J65] P Rowcliffe, JF Feng and H Buxton (2002) Clustering within Integrate-and-Fire Neurons for Image Segmentation. *Lecture Notes In Computer Science*, 2415:69-74.

- [J64] JF Feng (2002) Training neuron models with the Informax principle. *Neurocomputing*, 44:97-101.
- [J63] P Zhang, JF Feng (2002) Ideal observer of single neuron activity. *Neurocomputing*, 44:243-247.

2001

- [J62] JF Feng, G Wei (2001) Increasing inhibitory input increases neuronal firing rate: why and when? Diffusion process cases. *Journal of Physics A Mathematical and General*, 34(37):7493-7509.
- [J61] JF Feng (2001) Optimally decoding the input rate from an observation of the interspike intervals. *Journal Of Physics A-Mathematical And General*, 34(37):7475-7492.
- [J60] JF Feng (with G Leng et al.) (2001) Responses of magnocellular neurons to osmotic stimulation involves coactivation of excitatory and inhibitory input: An experimental and theoretical analysis. *Journal of Neuroscience*, 21 (17):6967-6977.
- [J59] JF Feng and PM Williams (2001) The generalization error of the symmetric and scaled support vector machine. *IEEE Transactions On Neural Networks*, 12(5):1255-1260.
- [J58] JF Feng (2001) Is the integrate-and-fire model good enough? - a review *Neural Networks* vol. 14(6-7): 955-975.
- [J57] JF Feng, D Brown, G Wei, and B Tirozzi (2001) Detectable and undetectable input signals for the integrate-and-fire model. *Journal Of Physics A-Mathematical And General*, 34(8):1637-1648.
- [J56] JF Feng, P Zhang (2001) Behavior of integrate-and-fire and Hodgkin-Huxley models with correlated inputs. *Physical Review E*, 63(5).
- [J55] JF Feng, G Li, D Brown and H Buxton (2001) Balance between four types of synaptic input for the integrate-and-fire model. *Journal Of Theoretical Biology*, 209(1): 61-73.
- [J54] JF Feng, G Li (2001) Integrate-and-fire and Hodgkin-Huxley models with current inputs. *Journal of Physics A: Mathematical and General*, 34:1649-1664.
- [J53] JF Feng (2001) Neuronal models with current inputs. *Lecture Notes In Computer Science*, 2084:47-54.
- [J52] JF Feng (2001) Non-symmetric Support Vector Machines. *Lecture Notes In Computer Science*, 2084:418-426.
- [J51] A Davison, JF Feng and D Brown (2001) Spike synchronization in a biophysically detailed model of the olfactory bulb. *Neurocomputing*, 38:515-521.
- [J50] D Brown, JF Feng and S Feerick (2001) Significance of random neuronal drive. *Neurocomputing*, 38:111-119.
- [J49] JF Feng and G Li (2001) Behaviour of two-compartment model. *Neurocomputing*, 38:205-211.
- [J48] S Feerick, JF Feng and D Brown (2001) Inhibitory inputs increase a neuron's firing rate. *Neurocomputing*, 38:197-203.

- [J47] JF Feng, M Shcherbina and B Tirozzi (2001) On the critical capacity of the Hopfield model. *Communications in Mathematical Physics*, 216(1):139-177.

2000

- [J46] JF Feng and D Brown (2000) Integrate-and-fire models with nonlinear leakage *Bulletin of Mathematical Biology*, 62(3):467-481.
- [J45] A Davison, JF Feng and D Brown (2000) A reduced compartmental model of the mitral cell for use in network models of the olfactory bulb. *Brain Research Bulletin*, 51(5): 393-399.
- [J44] JF Feng, D Brown and G Li (2000) Synchronization due to common pulsed input in Stein's model. *Physics Review E*, 61(3):2987-2995.
- [J43] JF Feng and B Tirozzi (2000) Stochastic resonance tuned by correlations in neuronal models. *Physical Review E*, 61(4):4207-4211.
- [J42] JF Feng and D Brown (2000) Impact of correlated inputs on the output of the integrate-and-fire models. *Neural Computation*, 12(3):671-692.
- [J41] JF Feng J, HO Georgii and D Brown (2000) Convergence to global minima for a class of diffusion processes. *Physica A*, 276(3-4):465-476.
- [J40] S Feerick, J Feng, D Brown (2000) Random pulse input versus continuous current plus white noise: Are they equivalent? *Neurocomputing*, 32-33:127-132.
- [J39] JF Feng (2000) Synchronization driven by correlated inputs. *Neurocomputing*, 32-33:371-378.
- [J38] D Brown and JF Feng (2000) Low correlation between random synaptic inputs impacts considerably on the output of the Hodgkin-Huxley model. *Neurocomputing*, 32:61-66.

1999

- [J37] D Brown, JF Feng and S Feerick (1999) Variability of firing of Hodgkin-Huxley and FitzHugh-Nagumo neurons with stochastic synaptic input. *Physical Review Letters*, 82(23):4731-4734.
- [J36] JF Feng and R Cassia-Moura (1999) Output of a neuronal population code. *Physical Review E*, 59(6):7246-7249.
- [J35] JF Feng and T Tirozzi (1999) Learning in a higher-order simple perceptron. *Mathematical and Computer Modelling*, 30(9-10):217-223.
- [J34] D Brown and JF Feng (1999) Effects of correlation and degree of balance in random synaptic inputs on the output of the Hodgkin-Huxley model. *Lecture Notes in Computer Science*, 1606:197-205.
- [J33] A Davison, JF Feng, D Brown (1999) Structure of lateral inhibition in an olfactory bulb model. *Lecture Notes in Computer Science*, 1606:189-196.

- [J32] S Feericks, JF Feng, and D Brown (1999) Paradoxical relationship between output and input regularity for the FitzHugh-Nagumo model. *Lecture Notes in Computer Science*, 1606:221-229.
- [J31] JF Feng (1999) Integrate-and-fire model with correlated inputs. *Lecture Notes in Computer Science*, 1606:258-267.
- [J30] JF Feng (1999) Estimating exact form of generalisation errors. *Lecture Notes in Computer Science*, 1606:413-420.
- [J29] JF Feng, D Brown (1999) Coefficient of variation of interspike intervals greater than 0.5. How and when? *Biol. Cybern.*, 80(5):291-297.
- [J28] D Brown, JF Feng (1999) Is there a problem matching real and model CV(ISI)? *Computational Neuroscience*, 87-91.
- [J27] JF Feng (1999) Origin of firing variability of the integrate-and-fire model. *Neurocomputing*, 26-27:117-122.

1998

- [J26] JF Feng (1998) Generalization errors of the simple perceptron. *J. Phys. A: Math. And Gen.*, 31(17):4037-4048.
- [J25] JF Feng, D Brown (1998) Impact of temporal variation and the balance between excitation and inhibition on the output of the perfect integrate and fire model. *Biol. Cyber.*, 78(5): 369-376.
- [J24] JF Feng, D Brown (1998) Fixed point attractor analysis for a class of neurodynamics. *Neural Computation*, 10(1):189-213.
- [J23] JF Feng, D Brown (1998) Spike output jitter, mean firing time and coefficient of variation. *J. Phys. A: Math. Gen.*, 31:1239-1252.

1997

- [J22] JF Feng (1997) Behaviors of spike output jitter in the integrate-and-fire model. *Phys. Rev. Lett.*, 79(22):4505-4508.
- [J21] JF Feng (1997) Lyapunov functions for neural nets with nondifferentiable input-output characteristics. *Neural Computation*, 9(1): 45-51.
- [J20] JF Feng, D Brown (1997) Viewing a class of neurodynamics on parameter space. *Lecture Notes in Computer Science*, 1240:546-555.
- [J19] JF Feng, B Tirozzi (1997) Convergence Theorems for the Kohonen feature mapping algorithms with VLRPs. *Computers and Mathematics with Applications*, 33(3):45-63.
- [J18] JF Feng, B Tirozzi (1997) Convergence theorems for a class of learning algorithm with VLRPs. *Neurocomputing*, 15(1): 45-68.
- [J17] JF Feng, H Pan, VP Roychowdhury (1997) A rigorous analysis of Linsker's unsupervised Hebbian learning. *Neural Network*, 10:705-720.

- [J16] JF Feng, B Tirozzi (1997) An analysis on neural dynamics with saturated sigmoidal functions. *Computers and Mathematics with Applications*, 34(10): 71-99.
- [J15] JF Feng, B Tirozzi (1997) A Discrete Version of the Dynamic Link Network. *Neurocomputing*, 15(2):91-106.
- [J14] JF Feng, B Tirozzi (1997) Capacity of the Hopfield model. *Journal of Physics A: Mathematics and General*, 30:3383-3391.
- [J13] D Chen, JF Feng, M Qian (1997) The metastable behaviour of the three-dimensional stochastic Ising model .1. *Science in China Series A-Mathematics Physics Astronomy*, 40(8): 832-842.
- [J12] D Chen, JF Feng, M Qian (1997) The metastable behaviour of the three-dimensional stochastic Ising model .2. *Science in China Series A-Mathematics Physics Astronomy*, 40(11):1129-1135.

1996

- [J11] JF Feng (1996) The hydrodynamic limit for the reaction diffusion equation-an approach in terms of the GPV method. *Journal of Theoretical Probability*, 9(2): 285-299.
- [J10] D Chen, JF Feng, M Qian, (1996) Metastability of exponential perturbed Markov chains. *Science in China series A*, 39(1):7-28.
- [J9] JF Feng, H Pan, and VP Roychowdhury (1996) On neurodynamics with limiter function and Linsker's developmental model. *Neural Computation*, 8(5):1003-1019.
- [J8] JF Feng, KP Hadeler (1996) Qualitative behavior of some simple networks. *Journal of Physics A: Mathematics and General*, 29(16): 5019-5033.
- [J7] JF Feng, D Brown (1996) A novel approach for analyzing dynamics in neural networks with saturated characteristic. *Neural Processing Letter*, 4(1):9-16.
- [J6] JF Feng, B Tirozzi, R Zucchi (1996) Rigorous results and critical capacity for a short-term memory model. *Markov Processes And Related Fields*, 2(4): 539-554.

1995

- [J5] S Albeverio, JF Feng, M Qian (1995) Role of noises in neural networks. *Physical Review E*, 52(6):6593-6606.
- [J4] JF Feng (1995) Establishment of topological maps-A model study. *Neural Processing Letters*, 2(6):9-12.
- [J3] JF Feng, B Tirozzi (1995) The SLLN for the free-energy of a class of neural networks. *Helvetica Physica Acta*, 68(4):365-379.
- [J2] JF Feng, B Tirozzi (1995) An application of the saturated attractor analysis to three typical models. *Lecture Notes in Computer Science*, 930:353-360.

1992

- [J1] JF Feng, G Lei, M Qian (1992) Second-order algorithms for SDE. *Journal of Computational Mathematics*, 10:376-387.

Publications (Proceeding and book chapter)

- [P24] S Wu, JF Feng and S Amari (2006) The Ideal Noisy Environment for Fast Neural Computation. *Lecture Notes in Computer Science*, 3971:1-6.
- [P23] S Wang, Y Chen, M Ding, JF Feng, JF Stein, TZ Aziz and X Liu (2005). Revealing the dynamic correlation between neural and muscular signals using time-dependent Granger causality analysis. *Medical Applications of Signal Processing*, 344(3-4):180-195.
- [P22] P Williams, S Li, JF Feng, S Wu (2005) Scaling the kernel function to improve performance of the support vector machine. *Lecture Notes in Computer Science*, 3496: 831-836.
- [P21] PM Williams, S Wu, JF Feng (2005) Improving the performance of the support vector machine: two geometrical scaling methods. *Springer-Verlag* (invited book chapter), 177, 205-218.
- [P20] JF Feng (2004) Stochastic computations in neurons and neural networks. Cytocom, R. Paton (ed.), *Computation in Cells and Tissues*, 185-210.
- [P19] KW Lee, H Buxton, JF Feng (2003) Selective attention for cue-guided search using a spiking neural network. L. Paletta, G.W. Humphreys, and R.B. Fisher (eds.), in *Proc. International Workshop on Attention and Performance in Computer Vision*, 55-63.
- [P18] HC Tuckwell, JF Feng (2003) A theoretical overview, 1-30, in *Computational Neuroscience: A Comprehensive Approach*. J. F. Feng (ed.), *Chapman and Hall/CRC Press*.
- [P17] JF Feng (2002) Coorelated neuronal computation. Sergey M. Bezrukov (eds), *Third International Conference on Unsolved Problems of Noise and Fluctuations in Physics, Biology, and High Technology*, *AIP Conference Proceedings*, 665:208-215.
- [P16] KW Lee, JF Feng, H Buxton (2002) A dynamic neural network model on global-to-local interaction over time course. *Proc. Int. Conf. on Neural Information Processing*, 3:1241-1247.
- [P15] KW Lee, JF Feng, H Buxton (2001) Perceptual reversal over time course. *Proc. Int. Conf. on Neural Information Processing*.
- [P14] WB Liu, JF Feng (2001) SSC minimization algorithms for nonsmooth and stochastic optimization. *to be published in Encyclopaedia of Optimization*, *Kluwer Acaademic*, 3665-3669.
- [P13] JF Feng, D Brown. (2000) A comparison between abstract and biophysical neuron models. in: Broomhead D.S., Luchinskaya E.A., McClintock V.E. an Mulin T. (eds), *Stochastic and Chaotic Dynamics in the Lakes*, *AIP conference proceedings 502*, 118-123.
- [P12] JF Feng, D Brown, B Tirozzi (1999) A model of pulse neural networks. in: Inan E., Markov K.Z. (eds), *Continuum Models and Discrete Systems*, *World Scientific Publishing Co.*, 353-357.

- [P11] JF Feng, D Brown (1998) Output jitter diverges to infinity, converges to zero or remains constant? in: M. Verleysen (ed), *ESANN'98*, 39-46.
- [P10] JF Feng, D Brown (1998) What are we observable in a class of neurodynamics? in: M. Verleysen (ed), *ESANN'98*, 147-154.
- [P9] JF Feng, B Tirozzi (1996) On choosing the parameters in the dynamic link network. in: Marinaro, M. and Tagliaferri, R. (ed), *WIRN VIETRI-95, World Scientific: Singapore*, 245-250.
- [P8] JF Feng, H Heyer (1995) Large deviations on a class of compact hypergroups. in: eyer, H.(ed), *Probability on the Group XI, Singapore: World Scientific*, 126-140.
- [P7] JF Feng, H Pan, VP Roychowdhury (1994) A rigorously analysis of linsker-type hebbian learning. *Advances in the Neural Information Processing System 7, Cambridge MA: MIT Press*, 319-326.
- [P6] D Chen, JF Feng, M Qian (1995) Metastability of two dimensional ising model. *Workshop on Dirichlet Forms and Markov Process, Walter de Gruyter*, 73-86.
- [P5] JF Feng and H Pan (1993) Analysis of linsker-type hebbian learning: Rigorous results. *IEEE International Conference on Neural Network, San Francisco*, 1516-1521.
- [P4] JF Feng, M Qian (1993) Two-stage annealing in retrieving memories I. in: Badrikian, A.; Meyer P-A, and Yan, J-A (ed.), *Probability and Statistics, Singapore: World Scientific*, 149-176.
- [P3] JF Feng (1992) Learning with random sampling inputs in a simple perceptron. *Proc. of Inter. Joint Conf. on NN: Beijing II*, 59-66.
- [P2] M Qian, JF Feng (1992) Is the noise just a perturbation? *Proc. of Inter. Joint Confer. on NN: Beijing II*, 545-551.
- [P1] H Pan, JF Feng, A Guo (1991) Layered self-adaptive neural network approach to early visual information processing. *Artificial Neural Network*, ed. by T, Kohonen, North-Holland, 1389-1392.

Publications (Journals Inside China):

- [10] JF Feng (2000). Impact of correlated inputs on the output of neuronal models. *Fudan Lectures In Neurobiology*, XVI:129-148 (invited).
- [9] JF Feng, and M Qian (1996) Determining the parameter region of the Linsker's network. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 32(3):302.
- [8] JF Feng (1995) Phase transition for a class of inhomogeneous Markov chains I. *Advances in Mathematics*, 24:102-112.
- [7] JF Feng (1995) A dicussion of the learning in a simple perceptron. *Acta Scientiarum Naturalium, Universitatis Pekinensis*, 31:20-26.
- [6] JF Feng, M Qian (1994) Retrieving memory-an approach in terms of the mean first exiting times. *Advances in Mathematics*, 23:50-65.
- [5] J Xu, JF Feng, M Ren (1994) Inter-well prediction for permeability: an application of spline. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 30:116-121. (in Chinese).

-
- [4] JF Feng, M Qian (1994) The convergence of the Hopfield type model. *Advances in Mathematics*, 23:451-459.
 - [3] JF Feng, M Qian (1993) Annealing in the neural networks. I. homogeneous case. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 29(5):563.
 - [2] JF Feng, M Qian (1993) Annealing in the neural networks. II. inhomogeneous case. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 29(3):303.
 - [1] JF Feng (1990) Numerical solution of the stochastic differential equation. *Chinese Journal of Numerical Mathematics and Applications*, 12:28-41.