

4、获批/申请专利

2011 年，实验室成员积极申请专利，在专利申请和授权方面有较大提升。申请专利共计 19 项，获授权专利 8 项。授权及申请的专利为：

- 1) 杜馨瑜, 李永杰, 尧德中, 李朝义. 一种基于视网膜视觉机制的彩色图像颜色恒常性方法. 专利号: ZL200910167730. X
- 2) 杨莉, 杜馨瑜, 尧德中, 李朝义. 一种基于视觉非经典感受野模型的图像去噪方法. 专利号: ZL200910167727. 8
- 3) 李永杰, 李朝义, 曾驰, 杨开富. 一种模拟视觉机制的图像目标物体轮廓检测方法. 中国发明专利号: ZL200910265067. 7
- 4) 李永杰, 李朝义, 曾驰, 杨开富. 一种模拟视觉机制的图像目标物体轮廓检测方法. 中国发明专利授权号: ZL200910265067. 7
- 5) 朱樱莺, 叶茂. 基于固有趋势子序列模式分解的出现新的心脏活动趋势的 ECG 信号获取方法. 专利号: ZL200810046006. 7
- 6) 朱樱莺, 叶茂等. 基于固有子序列模式分解的网络入侵检测. 专利号: ZL2008100445 15. 6
- 7) 朱樱莺, 叶茂等. 基于固有子序列模式分解的主机入侵检测. 专利号: ZL2008100445 16. 0
- 8) 丁剑, 叶茂, 王理强, 赵欣. 一种基于视频时间与空间信息的火焰检测方法. 专利号: ZL201010178309. 1
- 9) 计算机软件著作权. 脑电分析处理系统. 登记号: 2011SR033860
- 10) 张杨松, 徐鹏, 尧德中. SSVEP-BCI 系统多频排列编码以及识别方法. 申请号: 201110376669. 7
- 11) 刘铁军, 冯阳, 尧德中. 一种基于眼电信号的计算机输入控制方法. 申请号: 201110057657. 8
- 12) 李永杰, 陈丽霞, 李朝义. 一种基于对称特性的图像显著区域检测方法. 中国发明专利. 申请号: 201110163573. 2
- 13) 李永杰, 李雪菲, 杨开富, 李朝义. 一种基于相位特性的物体轮廓检测方法. 中国发明专利. 申请号: 201110163800. 1
- 14) 李永杰, 王晓静, 杨开富, 李朝义. 一种目标物体轮廓检测方法. 中国发明专利. 申请号: 201110163772. 3

- 3、 Yongxiu Lai, Dezhong Yao. Effect of intensity accents on the detection of interonset interval variations.. *Neuroreport*. 2011. 22(15): 749-752
- 4、 Yongxiu Lai, Yin Tian, Dezhong Yao. MMN Evidence for Asymmetry of IOI shortening andlengthening at Behavioral Indifference Tempo. *Brain Research*.2011,1367:170-180
- 5、 Luo C, Li Q, Lai Y, Xia Y, Qin Y, Liao W, Li S, Zhou D, Yao D, Gong Q. Altered Functional Connectivity in Default Mode Network in Absence Epilepsy interictal duration without IED: A Resting-state fMRI Study. *Human Brain Mapping*. 2011,2(3):438-449
- 6、 Lei X, Qiu C, Xu P, Yao D. A parallel framework for simultaneous EEG/fMRI analysis: Methodology and Simulation. *NeuroImage*. 2011,52(3):1123-1134
- 7、 Cheng Luo, Qifu Li, Yang Xia, Xu Lei, Kaiqing Xue, Zhiping Yao, Youxiu Lai, Eduardo Martinez-Montes, Wei Liao, Dong Zhou, Pedro A. Valdes-Sosa, Qiyong Gong and Dezhong Yao. Resting State Basal Ganglia Network in Idiopathic Generalized Epilepsy. *Human Brain Mapping*. 2011, DOI:10.1002/ hbm. 21286
- 8、 Luo C, Xia Y, Li Q, Xue K, Lai Y, Gong Q, Zhou D, Yao D. Diffusion and volumetry abnormalities in subcortical nuclei of patients with absence seizures. *Epilepsia*. 2011, DOI:10.1111/j.1528-1167.2011.03045.x.
- 9、 Tian Yin, Raymond M Klein, Jason Satel, Xu Peng, Yao Dezhong. Electrophysiological explorations of the cause and effect of inhibition of return in a cue-target paradigm. *Brain Topography*. 2011, 24: 164-182
- 10、 Tian Yin, Ana Chica, Xu Peng, Yao Dezhong. Differential Consequences of Orienting Attention in Parallel and Serial Search: An ERP Study. *Brain Research*.2011,1391:81-92
- 11、 Xu Lei, Dirk Ostwald, Jiehui Hu, Chuan Qiu, Camillo Porcaro, Andrew P. Bagshaw, Dezhong Yao. Multimodal functional network connectivity: An eeg-fmri fusion in the network space. *Plos One*.2011, 6: e24642
- 12、 Xu Lei, Jiehui Hu, dezhong Yao. Incorporating fMRI functional networks in EEG source imaging: A bayesian model comparison approach. *Brain Topogr*. 2011. DOI: 10.1007/s10548-011-0187-9
- 13、 Xu Lei, Cheng Luo, Dezhong Yao. *International Journal of Bioelectromagnetism*. Imaging epileptic networks using spatial-temporal EEG-fMRI fusion. 2011,13(4):249-254
- 14、 Xu Lei, Peng Xu, Cheng Luo, Jinping Zhao, Dong Zhou, Dezhong Yao. fMRI Functional Networks for EEG Source Imaging. *Hum Brain Mapp*. 2011, 32(7):1141-1160
- 15、 Striepens N, Kendrick KM, Maier W, Hurlmann R. Prosocial effects of oxytocin and clinical evidence for its therapeutic potential. *Front Neuroendocrinol*. 2011,32(4):426-50
- 16、 Jian-Gao Yao, Xin Gao, Hong-Mei Yan, Chao-Yi Li. Field of Attention for Instantaneous Object Recognition. *PLoS One*. 2011,6(1):e16343
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- 33、 Wei Liao, Ju-Rong Ding, Daniele Marinazzo, Qiang Xu, Zhengge Wang, Cuiping Yuan, Huaifu Chen. Small-world directed networks in the human brain: multivariate Granger causality analysis of resting-state fMRI. *NeruoImage*. 2011, 54:2683-2694
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- 36、 Li Ling,Zhang Jinxian,Jiang Tao. Visual Working Memory Load-Related Changes in Neural Activity and Functional Connectivity. *PLoS One*.2011, 6(7): e22357
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- 39、 J. Xu, M. Yang, K. Deng, H. Zhou. Antioxidant Activities of Dracocephalum Tanguticum Maxim Extract and Its Up-regulation on the Expression of Neurotrophic Factors in a Rat Model of Permanent Focal Cerebral Ischemia.. *Am J Chin Med*. 2011,39(1): 65-81
- 40、 Hao Lin, Qian-Zhong Li. Eukaryotic and prokaryotic promoter prediction using hybrid approach. *Theory in Biosciences*. 2011, 130(2): 91-100
- 41、 Hao Lin, Wei Chen. Prediction of thermophilic proteins using feature selection technique. *Journal of Microbiological Methods*. 2011, 84(1): 67-70.
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 - 51、 Wang Jing, Zhang Yang, Shen Xiaopei, Zhu Jing, Zhang Lin, Zou Jinfeng, Xiao Hui, Guo Zheng. Finding co-mutated genes and candidate cancer genes in cancer genomes by stratified false discovery rate control. *Molecular Biosystems*. 2011,7(4):1158-66
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 - 53、 Guo J, Rao N, Liu G, Yang Y, Wang G. Predicting protein folding rates using the concept of Chou's pseudo amino acid composition. *Journal of Computational Chemistry*. 2011,32(8):1612-1617
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 - 57、 Zijian Liu, Shouming Zhong, Xiaoyun Liu. Permanence and periodic solutions for an impulsive reaction-diffusion food-chain system with holling type III functional response. *Journal of the Franklin Institute*. 2011,348(2):277-299
 - 58、 Zijian Liu, Shouming Zhong, Chun Yin, Wufan Chen. Two-patches prey impulsive diffusion periodic predatorprey model. *Communications in Nonlinear Science and Numerical Simulation*. 2011,16(6): 2641-2655
 - 59、 Junkang Tian, Shouming Zhong. Improved delay-dependent stability criterion for neural networks with time-varying delay. *Applied Mathematics and Computation*. 2011,217(24):10278-10288
 - 60、 Zijian Liu, Shouming Zhong, Chun Yin, Wufan Chen. Permanence, extinction and periodic solutions in a mathematical model of cell populations affected by periodic radiation. *Applied Mathematics Letters*. 2011,24(10):1745-1750
 - 61、 Liang-Lin Xiong, Shou-Ming Zhong, Mao Ye. Delay-dependent BIBO stability analysis of switched uncertain neutral systems. *Mathematical and Computer Modelling*. 2011,53(9-10):1607-1620.

2011 年，学校为重点实验室提供了运行经费和主任基金共计 50 万元，主要用于重点实验室实验宣传资料更新，计算机等部分小型设备的购置，补助部分教师学术交流等。以开放课题的形式支持了部分实验室内外成员开展脑电实验和眼动实验研究等。

14	粘附分子 EpCAM 在草鱼头肾白细胞中的功能及作用机理研究	汪新艳	国家自然科学基金	2012-2015
15	人类致病菌必需基因的预测、确定及药靶优选	郭锋彪	教育部新世纪优秀人才支持计划	2012-2014
16	多通道微电极阵列制造系统的研制	颜红梅	横向	2011-2013
17	鱼用基因工程免疫刺激剂和疫苗增强剂的研制及其免疫机制的研究	周 红	四川省科技厅	2011-2013
18	脑电数据处理	赖永秀	横向	2011-2011
19	扶正解郁胶囊抗抑郁作用的药效学研究 (2011SZ0070)	游自立	四川省科技厅	2011-2012
20	神经信息创新团队	尧德中	教育部	2010-2013
21	多模态脑功能信息融合理论和方法	陈华富	国家自然科学基金重点项目	2011-2014
22	基于自适应非经典感受野机制的视觉选择性注意模型研究	李永杰	国家自然科学基金	2011-2013
23	不同整合野类型初级视皮层神经元在复杂自然场景特征提取中的作用机理研究	王 玲	国家自然科学基金	2011-2013
24	稳态视觉诱发电位的神经机制研究	尧德中	国家自然科学基金	2011-2013
25	颞叶癫痫动物脑网络的神经电生理机制研究	夏 阳	国家自然科学基金	2011-2013
26	模拟肽的生物信息处理与分析新方法研究	黄 健	国家自然科学基金	2011-2013
27	专性胞内菌复制链极端组成偏差的分析及其内在机制的研究	郭锋彪	国家自然科学基金	2011-2013
28	生物调控网络的相变及熵产生研究	丁 辉	国家自然科学基金项目(科学部主任基金)	2011-2011
29	脑机接口中运动想象盲的神经机制研究	尧德中	高等学校博士学科点专项科研基金	2010-2011

30	高仿真虚拟咬合诊断分析系统的研究	李 科	四川省科技厅	2010-2012
31	自适应旁瓣对消抗干扰工程应用研究	饶妮妮	航空科学基金	2010-2011
32	DNA 计算及其在密码学中应用研究	游自立	保密通信国防科技重点实验室	2010-2012
33	基于真实头模型的头表脑电数据处理方法及软件研究	尧德中	863（导向类）	2009-2011
34	运动想象脑结构和功能网络定量分析方法研究	高 晴	国家自然科学基金	2010-2012
35	TGF- β 1 双向调节硬骨鱼外周血淋巴细胞活性机理的研究	周 红	国家自然科学基金	2010-2012
36	初级视皮层神经元对自然图像特征编码的锋电位和局部场电位分析	颜红梅	国家自然科学基金	2010-2012
37	监护环境下房颤信号的盲提取方法研究及实现	王 刚	国家自然科学基金	2010-2012
38	基于诱发脑电的精神损伤评估系统	尧德中	四川省科技厅	2010-2012
39	基于 EEG 的 BCI 研究	尧德中	四川省科技厅	2010-2012
40	自适应眼底视网膜图像分割和配准技术研究	杨 勇	博士后特别资助计划	2010-2012
41	自适应噪声对消技术的工程实现与应用研究	饶妮妮	航空科学基金	2010-2012
42	音乐的神经编码与神经音乐技术研究	尧德中	国家自然科学基金重点项目	2008-2011
43	焦虑障碍磁共振影像诊断新技术研究	陈华富	863（探索类）	2008-2011
44	基于医学图像模糊内容检索的关键技术研究	李永杰	自然科学基金重点项目子课题	2008-2011
45	颞叶癫痫动物模型脑网络改变及其分子机制研究	赖永秀	国家自然科学基金	2009-2011
46	基于 ERP 功能性子成分的视觉注意网络的研究	李 凌	国家自然科学基金	2009-2011

47	大骨节病的环境危险因素与人体交互作用的研究	游自立	国家科技支持计划	2007-2011
48	基于神经反馈的难治性癫痫干预技术研究	夏 阳	四川省科技攻关	2009-2011

附表 2 实验室成员发表的主要学术论文

序号	主要作者	题目	发表期刊	年, 卷(期): 页	检索情况
1	Xu P, Yang P, Lei X, Yao D	An Enhanced Probabilistic LDA for Multi-Class Brain Computer Interface	Plos One	2011, 6(1): e14634	SCI
2	Xu Lei, Peng Xu, Cheng Luo, Jinping Zhao, Dezhong Yao	fMRI Functional Networks for EEG Source Imaging.	Hum Brain Mapping	2011 32(7):1141-1160	SCI
3	Lei X, Qiu C, Xu P, Yao D	A parallel framework for simultaneous EEG/fMRI analysis: Methodology and Simulation.	NeuroImage	2011,52(3):1123-1134	SCI
4	Luo C, Li Q, Lai Y, Xia Y, Qin Y, Zhou D, Yao D, Gong Q	Altered Functional Connectivity in Default Mode Network in Absence Epilepsy interictal duration without IED: A Resting-state fMRI Study	Human Brain Mapping	2011,2(3):438-449	SCI
5	Xu Lei, Dirk Ostwald, Jiehui Hu, Chuan Qiu, Dezhong Yao	Multimodal functional network connectivity: An eeg-fmri fusion in the network space	Plos One	2011, 6: e24642	SCI
6	Cheng Luo, Qifu Li, Yang Xia, Xu Lei, Dezhong Yao	Resting State Basal Ganglia Network in Idiopathic Generalized Epilepsy	Human Brain Mapping	2011,DOI:10.1002/hbm.21286	SCI
7	Luo C, Xia Y, Li Q, Xue K, Lai Y, Gong Q, Zhou D, Yao D	Diffusion and volumetry abnormalities in subcortical nuclei of patients with absence seizures	Epilepsia	2011,DOI:10.1111/j.1528-1167.2011.03045.x.	SCI

8	Yongxiu Lai, Dezhong Yao	Effect of intensity accents on the detection of interonset interval variations	Neuroreport	2011, 22(15): 749-752	SCI
9	Yongxiu Lai, Yin Tian, Dezhong Yao	MMN Evidence for Asymmetry of IOI shortening and lengthening at Behavioral Indifference Tempo	Brain Research	2011, 1367: 170-180	SCI
10	Tian Yin, Raymond M Klein Jason Satel Xu Peng, Yao Dezhong	Electrophysiological explorations of the cause and effect of inhibition of return in a cue-target paradigm	Brain Topography	2011, 24:164-182	SCI
11	Tian Yin, Ana Chica, Xu Peng, Yao Dezhong	Differential Consequences of Orienting Attention in Parallel and Serial Search: An ERP Study	Brain Research	2011, 1391:81-92	SCI
12	Liu Tiejun, Xu Peng, Yu Qian, Yao Dezhong	The Research and Progress in The Mechanism of Motor Imagery and Its Application in Motor Rehabilitation	Progress in Biochemistry and Biophysics	2011, 38(4): 299-303	SCI
13	Xu Lei, Jiehui Hu, Dezhong Yao	Incorporating fMRI functional networks in EEG source imaging: A Bayesian model comparison approach	Brain Topogr	2011. DOI: 10.1007/s10548-011-0187-9	SCI
14	Xu Lei, Cheng Luo, Dezhong Yao	Imaging epileptic networks using spatial-temporal EEG-fMRI fusion	International Journal of Bioelectromagnetism	2011, 13(4):249-254	SCI
15	DIANKUN GONG, JIEHUI HU AND DEZHONG YAO	Partial information can be transmitted in auditory channel: Inferences from lateralized readiness potentials	psychophysiology	2011, Accepted	SCI
16	Zhang Y, Xu P, Liu T, Hu J, Zhang R, Yao D	Multiple Frequencies Sequential Coding For SSVEP-based Brain-Computer Interface	Plos One	2011, Accepted	SCI
17	Weiyi Ma, Yongxiu Lai, Yuan Yuan, Dan Wu, Dezhong Yao	In Alpha Band During Tempo-specific Perception	NeuroReport	2011, Accepted	SCI

18	Striepens N, Kendrick KM, Maier W, Hurlemann R.	Prosocial effects of oxytocin and clinical evidence for its therapeutic potential	Front Neuroendocrinol	2011,32(4):426-50	SCI
19	Jian-Gao Yao, Xin Gao, Hong-Mei Yan, Chao-Yi Li	Field of Attention for Instantaneous Object Recognition	PLoS One	2011,6(1):e16343	SCI
20	Chi Zeng, Yongjie Li, Chaoyi Li	Center-Surround Interaction with Adaptive Inhibition: a Computational Model for Contour Detection	NeuroImage	2011, 55(1): 49-66	SCI
21	Chi Zeng, Yongjie Li, Kaifu Yang, Chaoyi Li	Contour Detection Based on a Non-classical Receptive Field Model with Butterfly-shaped Inhibition Subregions	Neurocomputing	2011,74(10): 1527-1534	SCI
22	Yuanchao Zhang, Tianzi Jiang	Reduced Cortical Thickness in Mental Retardation	PLoS One	2011,accepted	SCI
23	Ju-Rong Ding, Wei Liao, Zhiqiang Zhang, Huafu Chen	Topological fractionation of resting-state networks	PLoS One	2011,6(10):e26596	SCI
24	Jiang Zhang, Jianhui Qi, Wei Liao, Huafu Chen	Analysis of fMRI data using an integrated principal components analysis and supervised affinity propagation clustering approach	IEEE Transactions on Biomedical Engineering	2011, 58(11):3184-3196	SCI
25	Guo-Rong Wu, Fuyong Chen, Dezhi Kang, Daniele Marinazzo, Huafu Chen	Multiscale causal connectivity analysis by canonical correlation: theory and application to epileptic brain	IEEE Transactions on Biomedical Engineering	2011, 58(1):3088-3096	SCI

26	Wenbin Guo, Feng Liu, Zhimin Xue, Yan Yu, Chaoqiong Ma, Huafu Chen	Abnormal neural activities in first-episode treatment naive short-illness-duration and treatment-response patients with major depressive disorder: a resting-state fMRI study	Journal of Affective Disorders	2011, 135:326-331	SCI
27	Luqing Wei, Xujun duan, Wei Liao, Qing Gao, Huafu Chen	The synchronization of spontaneous BOLD activity predicts extraversion and neuroticism	Brain Research	2011,1419:68-75	SCI
28	Zhiqiang Zhang, Wei Liao, Huafu Chen, Qiang Xu	Altered functional-structural coupling of large-scale brain networks in idiopathic generalized epilepsy	Brain	2011, 134:2912-2928	SCI
29	Guo-Rong Wu, Xujun Duan, Wei Liao, Qing Gao, Huafu Chen	Kernel canonical-correlation Granger causality for multiple time series	Physics Review E	2011, 83(041921):1-4	SCI
30	Changjian Qiu, Wei Liao, Ju-Rong Ding, Huafu Chen	Regional homogeneity changes in social anxiety disorder: a resting-state fMRI study	Psychiatry Research: Neuroimaging	2011, 194:47-53	SCI
31	Wei Liao, Qiang Xu, Dante Mantini, Ju-Rong Ding, Huafu Chen	Altered gray matter morphometry and resting-state functional and structural connectivity in social anxiety disorder	Brain Research	2011, 1388:167-177	SCI
32	Ju-Rong Ding, Huafu Chen	Disrupted functional connectivity in social anxiety disorder: a resting state fMRI study	Magnetic Resonance Imaging	2011, 29(5):701-711	SCI
33	Wenbin Guo, Xueli Sun, Ling Liu, Qiang Xu, Huafu Chen	Disrupted regional homogeneity in treatment-resistant depression: a resting-state fMRI study	Progress in Neuro- Pharmacology & Biological Psychiatry	2011, 35:1297-1302	SCI

34	Daniele Marinazzo, Wei Liao, Huafu Chen	Nonlinear connectivity by Granger causality	NeuroImage	2011, 58(2):653-660	SCI
35	Wei Liao, Zhiqiang Zhang, Zhengyong Pan, Dante Mantini, Huafu Chen	Default mode network abnormalities in mesial temporal lobe epilepsy: a study combining fMRI and DTI	Human Brain Mapping	2011, 32(6):883-895	SCI
36	Jiang Zhang, Huafu Chen, Dahuan Li	Analysis of activity in fMRI data using affinity propagation clustering	Computer Methods in Biomechanics and Biomedical Engineering	2011, 14:271-281	SCI
37	Wei Liao, Ju-Rong Ding, Daniele Marinazzo, Huafu Chen	Small-world directed networks in the human brain: multivariate Granger causality analysis of resting-state fMRI	NeruoImage	2011, 54:2683-2694	SCI
38	Qing Gao, Xujun Duan, Huafu Chen	Evaluation of effective connectivity of motor areas during motor imagery and execution using conditional Granger causality	NeuroImage	2011, 54:1280-1288	SCI
39	Guangxin Huang, Huafu Chen	Two-class support vector data description	Pattern Recognition	2011, 44:320-329	SCI
40	Li Ling, Zhang Jinxian, Jiang Tao	Visual Working Memory Load-Related Changes in Neural Activity and Functional Connectivity	PLoS One	2011,6(7): e22357	SCI
41	Li Ling, Jin Zhenlan	Scale-Free Brain Networks Based on the Event-Related Potential during Visual Spatial Attention	Chinese physics letters	2011,28: 048701	SCI
42	李凌, 金贞兰, 李斌	基于因子分析方法的相位同步脑电源的时-空动力学分析	物理学报	2011,60: 048703	SCI

43	Li Ling, Jin Zhenlan, Li Bin	Analysis of phase synchronized functional network based on rhythm of brain activities	Chinese Physics B	2011,20: 038701	SCI
44	X. Wang, T. Zhao, H. Wei, H. Zhou.	Regulation of dopamine D2 receptor expression in grass carp pituitary cells: A possible mechanism for dopaminergic modification of luteinizing hormone synthesis	Gen Comp Endocrinol	2011,173(1):48-55	SCI
45	J. Xu, M. Yang, K. Deng, H. Zhou	Antioxidant Activities of Dracocephalum Tanguticum Maxim Extract and Its Up-regulation on the Expression of Neurotrophic Factors in a Rat Model of Permanent Focal Cerebral Ischemia.	Am J Chin Med	2011,39(1): 65-81	SCI
46	Hao Lin, Qian-Zhong Li	Eukaryotic and prokaryotic promoter prediction using hybrid approach	Theory in Biosciences	2011, 130(2): 91-100	SCI
47	Hao Lin, Wei Chen	Prediction of thermophilic proteins using feature selection technique	Journal of Microbiological Methods	2011, 84(1): 67-70	SCI
48	Hui Ding, Li Liu, Feng-Biao Guo, Jian Huang, Hao Lin	Identify Golgi protein types with modified Mahalanobis discriminant algorithm and pseudo amino acid composition	Protein & Peptide Letters	2011, 18(1): 58-63	SCI
49	Hao Lin, Hui Ding	Prediction of ion channels and their types by the dipeptide mode of pseudo amino acid composition	Journal of Theoretical Biology	2011, 269(1): 64-69	SCI
50	Hui Ding, Liao-Fu Luo, Hao Lin	Entropy production rate changes in lysogeny/lysis switch regulation of bacteriophage lambda	Communications in Theoretical Physics	2011, 55(2): 371-375	SCI
51	Du Mengzhe, Guo Fengbiao, Chen Yueyun	Gene re-annotation in genome of the extremophile Pyrobaculum aerophilum by using bioinformatics methods	J Biomol Struct Dyn	2011,29(2):391-401	SCI

52	Jinfeng Zou, Guini Hong, Xinwu Guo, Lin Zhang, Chen Yao, Jing Wang, Zheng Guo	Reproducible Cancer Biomarker Discovery in SELDI-TOF MS Using Different Pre-Processing Algorithms	PLoS One	2011,doi:10.1371/journal.pone.0026294	SCI
53	Wang Jing, Zhou Xianxiao, Zhu Jing, Guo Zheng	GO-function: deriving biologically relevant pathways from statistically significant pathways	Briefings in Bioinformatics	2011,doi: 10.1093/ bib/ bbr041	SCI
54	Dong Wang, Lixin Cheng, Zheng Guo	Extensive up-regulation of gene expression in cancer: the normalised use of microarray data	Mol. BioSyst	2011, doi:10.1039/ C2MB 05466C	SCI
55	Yunyan Gu, Wenyuan Zhao, Jiguang Xia, Zheng Guo	Analysis of Pathway Mutation Profiles Highlights Collaboration between Cancer-associated Super-pathways	Human Mutation	2011,doi: 10.1002/humu. 21541	SCI
56	Xue Gong, Ruihong Wu, Hongwei Wang, Zheng Guo	Evaluating the consistency of differential expression of miRNAs detected in human cancers	Molecular Cancer Therapeutics	2011 ,10(5):752-60	SCI
57	Wang Jing, Zhang Yang, Shen Xiaopei, Zhu Jing, Guo Zheng	Finding co-mutated genes and candidate cancer genes in cancer genomes by stratified false discovery rate control	Molecular Biosystems	2011 ,7(4):1158-66	SCI
58	Dong Wang, Lixin Cheng, Mingyue Wang, Zheng Guo	Extensive increase of microarray signals in cancers calls for novel normalization assumptions	Computational Biology and Chemistry	2011,doi:10.1016/j.combiolchem.2011.04.006	SCI
59	Guo J, Rao N, Liu G, Yang Y, Wang G	Predicting protein folding rates using the concept of Chou's pseudo amino acid composition	Journal of Computational Chemistry	2011,32(8): 32(8):1612-7	SCI

60	Y. Hou, Y. Yang, N. Rao, X. Lun and J. Lan	Mixture Model and Markov Random Field-Based Remote Sensing Image Unsupervised Clustering Method	Opto-Electronics Review	2011, 19(1):83-88	SCI
61	Hengguo Yu, Shouming Zhong, Ravi P. Agarwal, S.K. Sen	Three-species food web model with impulsive control strategy and chaos	Communications in Nonlinear Science and Numerical Simulation	2011,16(2)1002-1013	SCI
62	Hengguo Yu, Shouming Zhong	Mathematics analysis and chaos in an ecological model with an impulsive control strategy	Communications in Nonlinear Science and Numerical Simulation	2011,16(2):776-786	SCI
63	Zijian Liu, Shouming Zhong	Permanence and periodic solutions for an impulsive reaction-diffusion food-chain system with holling type III functional response	Journal of the Franklin Institute	2011,348(2):277-299	SCI
64	Zijian Liu, Shouming Zhong	Two-patches prey impulsive diffusion periodic predator-prey model	Communications in Nonlinear Science and Numerical Simulation	2011,16(6):2641-2655	SCI
65	Junkang Tian, Shouming Zhong	Improved delay-dependent stability criterion for neural networks with time-varying delay	Applied Mathematics and Computation	2011, 217(24): 10278-10288	SCI
66	Zijian Liu, Shouming Zhong	Permanence, extinction and periodic solutions in a mathematical model of cell populations affected by periodic radiation	Applied Mathematics Letters	2011,24(10):1745-1750	SCI
67	Liang-Lin Xiong, Shou-Ming Zhong, Mao Ye	Delay-dependent BIBO stability analysis of switched uncertain neutral systems	Mathematical and Computer Modelling	2011,53(9-10):1607-1620	SCI

68	Chun Yin, Shouming Zhong	Design PD controller for master–slave synchronization of chaotic Lur’e systems with sector and slope restricted nonlinearities	Communications in Nonlinear Science and Numerical Simulation	2011,16(3):1632-1639	SCI
69	Chun Yin, Shou-ming Zhong	Robust H_∞ control for uncertain Lur’e systems with sector and slope restricted nonlinearities by PD state feedback	Nonlinear Analysis: Real World Applications	2011,12(1): 501-512.	SCI
70	Zijian Liu, Shouming Zhong, Chun Yin	Dynamics of impulsive reaction–diffusion predator–prey system with Holling type III functional response	Applied Mathematical Modelling	2011,35(12):5564-5578	SCI
71	Changchun Shen, Shouming Zhong	The ellipsoidal bound of reachable sets for linear neutral systems with disturbances	Journal of the Franklin Institute	2011,348(9):2570-2585	SCI
72	Junkang Tian, Shouming Zhong	New delay-dependent exponential stability criteria for neural networks with discrete and distributed time-varying delays	Neurocomputing	2011,74(17): 3365-3375	SCI
73	Zijian Liu, Shouming Zhong	On the Dynamics of an Impulsive Reaction-Diffusion Predator–Prey System with Ratio-Dependent Functional Response	Acta Applicandae Mathematicae	2011,115:329-349	SCI
74	Chun Yin, Shouming Zhong	Novel Delay-Dependent H_∞ Stabilization Criterion for Lur’e Systems with Sector-Restricted Nonlinearities and External Disturbances via PD Feedback Approach	J. Optim. Theory Appl	2011,1511: 81-99	SCI
75	Huang J, Ru B, Zhu P, Nie F, Yang J, Rao N	MimoDB 2.0: a mimotope database and beyond	Nucleic Acids Research	2012,40(Database issue): in press	SCI
76	Huang J, Ru B, Dai P	Bioinformatics resources and tools for phage display	Molecules	2011,16(1): 694-709	SCI

77	杜馨瑜, 李永杰, 尧德中, 李朝义	基于图像导数框架和非负稀疏编码的颜色恒常计算方法	电子学报	2011,Accepted	SCI
78	You Z, Luo C, Zhang W, Chen Y, He J, Zhao Q, Zuo R, Wu Y.	Pro- and anti-inflammatory cytokines expression in rat 's brain and spleen exposed to chronic mild stress: Involvement in depression.	Behav Brain Res	2011,225(1):135-41	SCI
79	Chen Luo, Yang Xia, Zhiwei Guo, Dong Zhou	Abnormal basal ganglia functional connectivity in idiopathic generalized epilepsy	Journal of Electronic Science and Technology of China	2011,9(3):278-284	
80	杜馨瑜, 李永杰, 尧德中	一种模拟视觉机制的图像分割模型	中国生物医学工程学报	2011,Accepted	核心
81	尧兰, 夏阳, 尧德中	听觉重复启动时默认模式网络变化的磁共振研究	生物物理学报	2011,27(10):849-858	核心
82	Guangxin Huang, Huafu Chen, Feng Yin	Dynamic spatial discrimination maps of discriminative activation between different tasks based on support vector machines	Applied Mathematics	2011, 2:85-92	核心
83	张金香, 李凌	利用图片命名范式研究双语脑机制	生物物理学报	2011,27(5): 461-469	核心
84	丁辉, 林昊, 冯娟	DNA 拓扑异构酶域的多态转换模型	生物物理学报	2011, 27(1): 77-85	核心

附表3 来访的主要国内外专家学者的学术活动

序号	类别	专家姓名	专家单位	学术交流题目	时间地点
1	教授	Keith Maurice Kendrick	英国剑桥 The Babraham 研究所	Prosocial effects of the neuropeptide oxytocin and its potential for treatment of social and affective disorders	2011-4-21 学院会议室
2	教授	陈昭燃	首都医科大学	高级脑功能研究进展	2011-5-26 学院会议室
3	教授	高上凯	清华大学生物医学工程系	基于视听觉信息的脑-机接口系统	2011-6-3 学院会议室
4	教授	Robert W. Brown	Physics Department Case Western Reserve University	Magnetic Particle Imaging: A New Imaging Modality	2011-6-17 学院会议室
5	教授	Bart M. ter Haar Romeny	荷兰 Eindhoven Technical University	Diffusion tensor imaging and its applications	2011-6-29 学院会议室
6	教授	Keith Maurice Kendrick	英国剑桥 The Babraham 研究所	Future Brain	2011-7-3 一教 204
7	教授	罗跃嘉	北京师范大学	社会认知的脑成像研究进展	2011-7-3 一教 204
8	教授	李春波	上海交通大学医学院精神卫生中心	认知训练干预对老化大脑可塑性的影响	2011-7-3 一教 204
9	教授	周昌松	香港浸会大学	Analysis and modeling of complex cortical network connectivity and activity	2011-7-14 学院会议室
10	博士	Yasser Iturria Medina	古巴神经科学中心	Automated Discrimination of Brain Pathological State Attending to Complex Structural Brain Network Properties	2011-7-18 学院会议室
11	院士	Pedro A. Valdes-Sosa	古巴神经科学中心	Possibilities and Limits of Connectivity Analyses on Neuroimaging Data	2011-11-19 一教 205
12	教授	李小隼	北京师范大学	Computational Methods for Brain	2011-11-19 一教 205
13	教授	郑筱祥	浙江大学	双向闭环侵入式脑机接口的理论与关键技术	2011-11-19 一教 205
14	教授	李远清	华南理工大学	Research Center for Brain Computer Interfaces & Brain Information Processing	2011-11-19 一教 205
15	教授	谭力海	香港大学	Brain Systems Underlying Chinese Language Processing: Insights from Functional Neuroimaging Studies	2011-11-19 一教 205
16	教授	冯剑锋	英国 Warwick University	Integrating trip'o' (geno, neuro,pheno (imaging)) data to tackle a few brain disorders	2011-11-20 一教 205

17	教授	龚启勇	四川大学	Translational “Mood” Imaging: a radiologist prospective	2011-11-20 一教 205
18	院士	Pedro A. Valdes-Sosa	古巴神经科学中心	Introduction to “International Neuroinformatics Coordinating Facility”, with information ref to: www.incf.org	2011-11-20 一教 205
19	副研究员	罗欢	中国科学院	Neuronal oscillation phase modulation as an instrument for temporal segmentation of natural sensory stream	2011-11-20 一教 205
20	博士	南云	北京师范大学	Auditory experience modulates neural encoding of sound	2011-11-20 一教 205
21	教授	丁肇华	美国范德堡大学	Image-Based Biomechanical Studies of the Human Coronary Arteries	2011-11-30 学院会议室
22	教授	郭雷	西北工业大学	磁共振成像模型算法和数据分析研究	2011-12-6 主楼西 304

附表 4 实验室成员参加的主要国际国内学术会议

序号	会议名称	时间地点	备注
1	2010 年天津市放射学年会	2011 年 1 月 14 日 天津	特邀报告 (蒋田仔)
2	International Symposium on Brain Image Process	2011 年 3 月 18 日 韩国	特邀报告 (蒋田仔)
3	香山科学会议 393 次学术讨论会“脑网络组及其临床应用的前沿科学问题”	2011 年 4 月 13-15 日 北京	邀请报告 (尧德中)
4	Forum of Biomedical Imaging Frontier	2011 年 4 月 16 日 上海	特邀报告 (蒋田仔)
5	第二届中国大连国际 DNA 和基因组学活动周	2011 年 4 月 25-29 日 大连	分会场主席 (郭锋彪)
6	The 8th International Symposium on Noninvasive Functional Source Imaging of the Brain and Heart	2011 年 5 月 13-16 日 Canada BANFF	口头报告 (尧德中)
7	第四届 IEEE 计算机科学与信息技术国际会议	2011 年 6 月 10-12 日 成都	参会
8	Netherlands Science & Technology Officers Network Seminar on Brain & Cognition: BRAINS MEAN BUSINESS	2011 年 5 月 17 日 荷兰 Leiden	特邀报告 (蒋田仔)
9	现代光电领域博士生交叉学科创新论坛暨武汉光电论坛	2011 年 7 月 7-8 日 武汉	特邀报告 (蒋田仔)
10	The 9th International Bioinformatics Workshop	2011 年 7 月 11-13 日 西安	大会报告 (黄健)
11	The 3rd Beijing International Symposium on Computational Neuroscience	2011 年 7 月 13-15 日 北京	参会
12	The 7th Asia-Pacific Conference on Vision	2011 年 7 月 17-18 日 香港	参会
13	第七届全国认知语言学研讨会	2011 年 7 月 上海	参会
14	International symposium on Brain Imaging: new frontiers on data analysis	2011 年 7 月 10-11 日 广州	特邀主题报告 (尧德中)
15	2011 年中国神经科学学会第九届全国学术会议	2011 年 7 月 29 日至 8 月 1 日 郑州	邀请报告 (尧德中)
16	International Workshop “Mathematical Methods in Medical Imaging”	2011 年 9 月 26-27 日 韩国首尔	特邀报告 (蒋田仔)

17	FRQS-NSFC Joint WorkShop on Aging 2011	2011 年 10 月 2-6 日 加拿大蒙特利尔	特邀报告 (蒋田仔)
18	第十四届全国心理学大会	2011 年 10 月 21-24 日 西安	参会
19	2011 年中国生物医学工程联合学术年会	2011 年 10 月 30 日 武汉	大会报告 (尧德中) 邀请报告(李永杰, 陈华富)
20	脑功能与脑成像国际学术研讨会	2011 年 11 月 19-20 日 成都	大会报告 (keith, 陈华富, 李永杰, 蒋田仔)
21	眼科疾病与视觉认知及大脑可塑	2011 年 11 月 23 日 上海	特邀报告 (蒋田仔)
22	中华医学会精神病学分会 2011 年年会	2011 年 11 月 24-25 日 广州	特邀报告 (蒋田仔)
23	国际神经病学中山高峰论坛· 2011	2011 年 11 月 26 日 广州	特邀报告 (尧德中, 蒋田仔)