卓冠宏 Kuan-Hung Cho, Ph.D.

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EDUCATION

- Ph.D., Electrical Engineering, Sep 2003 – Jan 2009,
  National Taiwan University, Taipei, Taiwan.
  Dissertation:
  The Investigation and Development of High Angular Resolution Diffusion Imaging: The Evaluation of Diffusion Weighting and Improvement of Sampling Efficiency

- M.S., Electrical Engineering, Sep 2001 – Jun 2003,
  National Taiwan University, Taipei, Taiwan.
  Thesis:
  DSP Implementation of An Active Noise Cancellation System for fMRI

- B.S., Electrical Engineering, Sep 1997 – Jun 2001,
  National Taiwan University, Taipei, Taiwan.

WORK EXPERIENCE

- Aug 2016 ~
  Postdoctoral research fellow,
  Institute of Biomedical Engineering and Nanomedicine (IBEN),
  National Health Research Institutes (NHRI), Miaoli, Taiwan
  - Establishment of the first home-built preclinical MRI platform in Taiwan for small animal researches by integrating a dedicated ultra-high strength gradient coil into a clinical 3 T superconductive magnet. This work has been accepted as a journal paper in PLOSONE.
  - System manager of the 3 T preclinical MRI system of I-BEN. Establishment of the standard procedures of MRI scanning, imaging protocols and pulse sequence for small animal studies, providing high resolution anatomical images and multi-contrast images using various imaging techniques, such as T1 map, T2 map, temperature mapping, and brain connectome.
  - MRI pulse sequence development and parameter optimization for advance and fast MRI imaging techniques, including diffusion pulse gradient spin-echo echo planar imaging (PGSE-EPI), multi-shot EPI, and multi-echo EPI.

- Aug 2014 – Jun 2016
  MRI scientist,
  CEMAR SINICA CORPORATION (華源磁振科技股份有限公司), Taiwan
  - MRI pulse sequence development and parameter optimization for clinical applications,

including fast spin echo (FSE) sequence, twice-refocused spin-echo diffusion EPI sequence.

- System integration of a clinical 1.5 T MRI scanner (Scimedix, Korea).

- Aug 2013 – Jul 2014
Assistant professor,
Institute of Brain Science,
National Yang-Ming University, Taipei, Taiwan

- Mar 2013 – Jul 2013
Postdoctoral research fellow,
The Division of Medical Engineering,
National Health Research Institutes, Miaoli, Taiwan (Supervised by Dr. Li-Wei Kuo)
  - Installation of ultra-high strength gradient coil and high strength human brain connectome.
  - Pulse sequence development for diffusion MRI for human brain connectome, including diffusion tensor imaging (DTI), q-ball imaging (QBI) and diffusion spectrum imaging (DSI) with pulse gradient spin-echo (PGSE) diffusion sequence.

- Sep 2009 – Feb 2013
Postdoctoral research fellow,
Institute of Neuroscience,
National Yang-Ming University, Taipei, Taiwan (Supervised by Prof. Ching-Po Lin)
  - System manager of a 3 Tesla clinical MR system (Trio with Tim, Siemens, Germany).
  - Develop and optimize of diffusion functional MRI on 3 Tesla clinical MR system in the collaboration by Prof. Ching-Po Lin and Dr. Denis Le Bihan, the director of Neurospin, CEA Saclay Center, Paris, France.
  - Apply diffusion functional MRI to stroke patient, cooperating with Dr. Yuau-Hsiung, Tasi, Deputy Chief of Department of Diagnostic Radiology, Chang Gung Memorial Hospital, Chia-Yi, Taiwan.
  - Develop improved tractography algorithm by including diagonal tract propagation by cooperating with Dr. Paul Taylor, Postdoctoral Fellow, UMDNJ, Newark, NJ, USA.
  - Evaluation of recovery from spinal cord injury using advanced diffusion MRI, cooperating with Dr. Chen-Te Wu, Medical Treatment Section, Chang Gung Memorial Hospital, Taoyuan, Taiwan.
  - Comparison of volume difference in hippocampus between knockout and wildtype mice using high resolution 3D MRI, cooperating with Prof. Kuen-Jer Tsai, Institute of clinical medicine, National Cheng Kung University, Tainan, Taiwan.

- Feb 2009 – Aug 2009
Postdoctoral research fellow,

Department of Electrical Engineering,
National Taiwan University, Taipei, Taiwan (Supervised by Prof. Jyh-Horng chen)
- MRI pulse sequence development for wideband MRI on a 7 T preclinical MR scanner (Biospec, Bruker, Gemany)

EXPERTISE

- *Magnetic Resonance Imaging*
  - MRI physics
  - Diffusion MRI
  - Functional MRI
  - Pulse sequence programming
    - Bruker
    - Siemens
    - MR solutions
    - Scimedix
  - MRI experience:
    - Siemens 3 T Trio with TIM / 3 T Prisma
    - Bruker 3 T human system / 7 T Biospec system / 9.4 T Biospec system
    - Varian 9.4 T animal system
    - Scimedix 1.5 clinical system
    - Philips 3 T clinical system

- *Engineering*
  - Signal processing
  - Artificial neural network
  - Image restoration and processing

- *Computer Science*
  - Programming (C++, matlab, PHP)
  - Computer vision & 3D visualization

COURSES

- Feb 2014 – Jun 2014
  擴散核磁共振影像程式分析與實作
  Institute of Brain Science,
  National Yang-Ming University, Taipei, Taiwan

- Aug 2013 – Jan 2014

Diffusion MRI,

Institute of Brain Science,

National Yang-Ming University, Taipei, Taiwan

- Aug 2010 – Jan 2011

  Medical engineering (醫學工程概論),

  Deparment of Mechanical Engineering,

  National Taipei University of Technology, Taipei, Taiwan

HONORS

- Student Stipend Award for "*The joint Annual Meeting ISMRM-ESMRMB 2007"*, Berlin, Germany, 2007
- Student Stipend Award for "*14th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine*", Seattle, USA, 2006.
- Student Stipend Award for "*13th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine*", Miami, USA, 2005.

CERTIFICATION

- Oct. 29~Nov. 2, 2012

  Siemens IDEA Pulse Sequence Programming Training Course, CARY, USA
- Jan. 21 ~ 25, 2008

  Siemens IDEA Pulse Sequence Programming Training Course, CEA, Paris, France
- Apr. 01 ~ 07, 2006

  Bruker Pulse Programming Training Course, Ettlingen, Germany
- Sep. 18 ~ Oct. 16, 2003

  Linux System, Computer and Information Networking Center, National Taiwan University, Taipei, Taiwan.

INVITED TALK

- Jun. 16, 2012

  Investigation of temporal and spatial properties for diffusion functional MRI, 管窺大腦動靜 國際研討會，國立台灣大學

PIBLICATIONS

Submitted manuscript:

1. Ming-Jye Chen, **Kuan-Hung Cho**, Hsuan-Han Chiang, Chang-Hoon Choi, Ezequiel Farrher, Richard Buschbeck, N. Jon Shah, Piotr Starewicz, Wen-Yih Isaac Tseng, Hsu Chang and Li-Wei Kuo. "In-house dedicated 3 T MRI with an integrated high-strength gradient coil: system performance evaluation and feasibility demonstration on brain applications," submitted to IEEE Transactions on Biomedical Circuits and Systems. (2019, under review)

2. Ezequiel Farrher, Farida Grinberg, Li-Wei Kuo, **Kuan-Hung Cho**, Richard Buschbeck, Ming-Jye Chen, Hsuan-Han Chiang, Chang-Hoon Choi, N. Jon Shah. "Dedicated diffusion phantoms for the investigation of free water elimination and mapping: insights into explicitly accounting for T2 attenuation," submitted to NMR in Biomedicine. (2019, under revision)

Journal Papers:

・ *2019*

3. **Kuan-Hung Cho**, Sheng-Min Huang, Chang-Hoon Choi, Ming-Jye Chen, Hsuan-Han Chiang, Richard P. Buschbeck, Ezequiel Farrher, N. Jon Shah, Ruslan Garipov, Ching-Ping Chang, Hsu Chang and Li-Wei Kuo. "Development, integration and use of an ultra-high-strength gradient system on a human-size 3 T magnet for small animal MRI," PLoS ONE, 2019 (In press).

4. Chia-Wen Chiang, Shih-Yen Lin, **Kuan-Hung Cho**, Kou-Jen Wu, Yun Wang and Li-Wei Kuo*. "Effects of signal averaging, gradient encoding scheme, and spatial resolution on diffusion kurtosis imaging: An empirical study using 7T MRI," Journal of Magnetic Resonance Imaging, 2019, doi: 10.1002/jmri.26755.

・ *2017*

5. Yi-Fang Chen, Ang Yuan, **Kuan-Hung Cho**, Yi-Chien Lu, Mark Yen-Ping Kuo, Jyh-Horng Chen, Yeun-Chung Chang (2017) "*Functional evaluation of therapeutic response of HCC827 lung cancer to bevacizumab and erlotinib targeted therapy using dynamic contrast-enhanced and diffusion-weighted MRI.*" PLOS ONE 12(11): e0187824.

・ *2015*

6. Tsung-Hsien Chen, Shan-Wen Liu, Mei-Ru Chen, **Kuan-Hung Cho**, Tzu-Yin Chen, Pao-Hsien Chu, Yu-Ying Kao, Ching-Han Hsu, and Kurt Ming-Chao Lin. "*Neonatal Death and Heart Failure in Mouse with Transgenic HSP60 Expression*". BioMed Research International, vol. 2015, Article ID 539805, 11 pages, 2015

・ *2013*

7. Jason Chia-Hsien Cheng, Ang Yuan, Jyh-Horng Chen, Yi-Chien Lu, **Kuan-Hung Cho**, Jian-Kuen Wu , Chien-Jang Wu, Yeun-Chung Chang, Pan-Chyr Yang. "Early Detection of Lewis Lung Carcinoma Tumor Control by Irradiation Using Diffusion-Weighted and Dynamic Contrast-Enhanced MRI". PLoS ONE 2013 8(5): e62762.

8. **Kuan-Hung Cho**, Li-Wei Kuo, Ching-Po Lin. "*Mapping Brain Connectomics from Brownian Motion: A Technical Review for Diffusion MRI*". Journal of Neuroscience and Neuroengineering, 2013; 2, No. 2, pp. 104-118(15).

・ *2012*

9. Changwei W. Wu, Po-Yu Liu, Pei-Jung Tsai, Yu-Chin Wu, Ching-Sui Hung, Yu-Che Tsai, **Kuan-Hung Cho**, Bharat B. Biswal, Chia-Ju Chen, and Ching-Po Lin. "Variations in Connectivity in the Sensorimotor and Default-Mode Networks During the First Nocturnal Sleep Cycle". Brain Connectivity. September 2012, 2(4): 177-190.

10. Paul A. Taylor, **Kuan-Hung Cho**, Ching-Po Lin, Bharat B. Biswal. "*Improving DTI*

tractography by including diagonal tract propagation". PloS ONE 2012; 7(9), e43415

11. Shan-Wen Liu, **Kuan-Hung Cho**, Mei-Ru Chen, Hsiao-Chi Yu, Yu-Ying Kao, Tsui-Chun Tsou, Ching-Po Lin, Chin-Tu Chen, Ching-Han Hsu and Kurt Ming-Chao Lin. "*FERRITIN-RED FLUORESCENT PROTEIN FUSION REPORTER FOR MAGNETIC RESONANCE AND OPTICAL IMAGING.*" Biomedical Engineering: Applications, Basis and Communications, 2012; 24, No. 4 pp.333-341.

12. Tun-Wei Hsu., Changwei W. Wu, Yu-Fan Cheng, Hsiu-Ling Chen, Cheng-Hsien Lu, **Kuan-Hung Cho**, Wei-Che Lin, Ching-Po Lin. "*Impaired Small-World Network Efficiency and Dynamic Functional Distribution in Patients with Cirrhosis*". PLoS ONE 2012; 7, e35266.

- *2010*

13. Kuen-Jer Tsai, Chun-Hung Yang, Yen-Hsin Fang, **Kuan-Hung Cho**, Wei-Lin Chien, Wei-Ting Wang, Tzu-Wei Wu, Ching-Po Lin, Wen-Mei Fu, and Che-Kun James Shen. "*Elevated expression of TDP-43 in the forebrain of mice is sufficient to cause neurological and pathological phenotypes mimicking FTLD-U*". *Journal of Experimental Medicine* 2010;207(8): 1661-1673.

14. Chun-Hung Yeh, J.-Donald Tournie, **Kuan-Hung Cho**, Ching-Po Lin, Fernando Calamante, Alan Connelly. "*The effect of finite diffusion gradient pulse duration on fibre orientation estimation in diffusion MRI*". *Neuroimage* 2010;51(2):743-51.

15. Erick Jorge Canales-Rodríguez, Ching-Po Lin, Yasser Iturria-Medina, Chun-Hung Yeh, **Kuan-Hung Cho**, Lester Melie-García. "*Diffusion orientation transform revisited*". *Neuroimage* 2010; 49(2):1326-39.

- *2009*

16. **Kuan-Hung Cho**, Chun-Hung Cho, Jyh-Horng Chen, Ching-Po Lin. "*Potential in reducing scan times of HARDI by accurate correction of the cross-term in a hemi-spherical encoding scheme*". *Journal of Magnetic Resonance Imaging* 2009;29(6):1386-94.

17. Yi-Ping Chao, **Kuan-Hung Cho**, Kun-Hsien Chou, Jyh-Horng Chen, Ching-Po Lin, "*Probabilistic topography of human corpus callosum using cytoarchitectural parcellation and HARDI-tractography*", *Human Brain Mapping* 2009; 30(10):3172-87.

- *2008*

18. **Kuan-Hung Cho**, Chun-Hung Yeh, J-Donald Tournier, Yi-Ping Chao, Jyh-Horng Chen, Ching-Po Lin. "*Evaluation of the accuracy and angular resolution of q-ball imaging*". *NeuroImage* 2008; 42(1):262-271.

19. Yi-Ping Chao, Jyh-Horng Chen, **Kuan-Hung Cho**, Chun-Hung Yeh, Kun-Hsien Chou, Ching-Po Lin, "*A Multiple Streamline Approach to High Angular Resolution Diffusion Tractography*", *Medical engineering & physics* 2008;30(8):989-996.

20. Chun-Hung Yeh, **Kuan-Hung Cho**, Hsuan-Cheng Lin, Jiun-Jie Wang, Ching-Po Lin. "*Reduced encoding diffusion spectrum imaging implemented with a bi-Gaussian model*". *IEEE transactions on medical imaging* 2008;27(10):1415-1424.

21. J.-Donald Tournier, Chun-Hung Yeh, Fernando Calamante, **Kuan-Hung Cho**, Alan Connelly, Ching-Po Lin, "*Resolving crossing fibres using constrained spherical*

deconvolution: Validation using diffusion-weighted imaging phantom data", *Neuroimag*, 2008:42(2):617-625.

Conference Papers:

· *2019*

1. **<u>Kuan-Hung Cho</u>**, Richard Buschbeck, Shih-Yen Lin, Ezequiel Farrher, Ming-Jye Chen, Chia-Wen Chiang, N. Jon Shah, Chang-Hoon Choi, and Li-Wei Kuo. "An in vivo investigation on quantitative metrics of diffusion kurtosis tensor: the effect of diffusion gradient parameters in the clinical setting". 27th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Montréal, QC, Canada, 2019.

2. Richard Buschbeck, Ezequiel Farrher, **<u>Kuan-Hung Cho</u>**, Ming-Jye Chen, Seong Dae Yun, Chang-Hoon Choi, Li-Wei Kuo, and N. Jon Shah. "A Multi-Echo Stejskal-Tanner EPI Sequence for Rapid Measurements of T2 and Diffusion Tensor Correlations". 27th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Montréal, QC, Canada, 2019.

3. Sheng-Min Huang, **<u>Kuan-Hung Cho</u>**, Tsung-Ying Yang, Yi-Shan Wu, Hsuan-Kai Huang, Chia-Wen Chiang, Pei-Hsin Huang, and Li-Wei Kuo. "Diffusion tensor imaging and resting-state functional MRI reveal altered brain network hubs on a depression knockout mouse model". 27th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Montréal, QC, Canada, 2019.

4. Sheng-Min Huang, **<u>Kuan-Hung Cho</u>**, Ming-Jye Chen, Hsuan-Han Chiang, Chang-Hoon Choi, Richard Buschbeck, Ezequiel Farrher, N. Jon Shah, Ruslan Garipov, Ching-Ping Chang, Hsu Chang, and Li-Wei Kuo. "A 3T MRI platform for imaging rodent models by integrating a dedicated high-strength gradient coil on a whole-body magnet". 27th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Montréal, QC, Canada, 2019.

· *2018*

5. Husan-Han Chiang, **<u>Kuan-Hung Cho</u>**, Ezequiel Farrher, Johannes Lindemeyer, RichardBuschbeck, Ming-Jye Chen, Farida Grinberg, N. Jon Shah, Chang-Hoon Choi, Li-Wei Kuo. "Design of multi-purpose and 3D-printed fibre phantoms for investigating complex tisse microstructures". 26th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Paris, France, 2018

6. Ming-Jye Chen, **<u>Kuan-Hung Cho</u>**, Chang-Hoon Choi, Ezequiel Farrher, Richard Buschbeck, Hsuan-Han Chiang, N. Jon Shah, Hsu Chang, Li-Wei Kuo. "*A feasibility study of ultra-high-strength gradient system on 3T: demonstration using DTI on anisotropic diffusion fiber phantoms*". 26th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Paris, France, 2018

7. Ezequiel Farrher, **<u>Kuan-Hung Cho</u>**, Richard Buschbeck, Husan-Han Chiang, Ming-Jye Chen, Farida Grinberg, N. Jon Shah, Chang-Hoon Choi, Li-Wei Kuo. "*DTI-based free-water elimination with T_2-weighting using dedicated anisotropic diffusion fibre phantoms*". 26th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Paris, France, 2018

· *2017*

8. **<u>Kuan-Hung Cho</u>**, Chun-Hung Yeh, Yi-Ping Chao, Ching-Po Lin, Li-Wei Kuo. *"Minimizing the error in finding peak orientations of fiber ODF in diffusion MRI using Nelder-Mead simplex method"*. 25th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, 2017.

9. Chia-Wen Chiang, Kou-Jen Wu, Shih-Yen Lin, **<u>Kuan-Hung Cho</u>**, B. Linju Yen, Yun Wang, Li-Wei Kuo. "Using diffusion kurtosis magnetic resonance imaging to monitor iPS-MSCs treatment response in stroke," SFN 47th Annual Meeting, Washington DC, USA, 2017.

10. Ming-Jye Chen, **<u>Kuan-Hung Cho</u>**, Chang-Hoon Choi, Ezequiel Farrher, Richard Buschbeck, Husan-Han Chiang, N. Jon Shah, Hsu Chang, Li-Wei Kuo. "Integration of ultra-high-strength, multi-scale and switchable gradient systems on a whole-body 3T magnet: diffusion MRI feasibility demonstration," ESMRMb, Barcelona, Spain, 2017.

11. Ezequiel Farrher, **<u>Kuan-Hung Cho</u>**, Richard Buschbeck, Husan-Han Chiang, Ming-Jye Chen, Farida Grinberg, N. Jon Shah, Chang-Hoon Choi, Li-Wei Kuo. "Investigating complex structural characteristics using diffusion MRI on multi-sectional anisotropic fibre phantoms," ESMRMb, Barcelona, Spain, 2017.

12. Chen-Pei Lin, Shih-Yen Lin, Chia-Wen Chiang, **<u>Kuan-Hung Cho</u>**, Chien-Yuan Lin, Li-Wei Kuo. "Investigating Altered Brain Functional Network in Alzheimer's Disease Using a Joint Framework of Graph Theoretical Analysis and Machine Learning," Proc 25th ISMRM Ann Meeting, Hawaii, USA, 2017.

- *2013*

13. **<u>Kuan-Hung Cho</u>**, Li-Wei Kuo, Yi-Ping Chao, Ching-Po Lin. *"Estimation of Fiber Orientation by Filtered Q-ball Imaging"*. 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society in conjunction with 52nd Annual Conference of Japanese Society for Medical and Biological Engineering (JSMBE), Osaka, Japan, 2013

14. **<u>Kuan-Hung Cho</u>**, Li-Wei Kuo, Yi-Ping Chao, Ching-Po Lin. *"Diffusion Spectrum Imaging Reconstruction Using Shell Encoding"*. International Symposium on Biomedical Imaging, San Francisco, USA, 2013

- *2012*

15. Li-Ming Hsu, **<u>Kuan-Hung Cho</u>**, Cyril Poupon, Denis Le Bihan, Ching-Po Lin, *"Optimization of Diffusion-Weighted FMRI at 3T MRI Compare with BOLD-FMRI"*, 20th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Melbourne, Australia, 2012

- *2009*

16. **<u>Kuan-Hung Cho</u>**, Bing-Hsuan Lei, Jyh-Horng Chen, *"A DTI study of diffusion anisotropy on CRMP-1 knockout mice"*, 17th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, 2009

17. Chun-hung Yeh, J-Donald Tournier, **<u>Kuan-Hung Cho</u>**, Cyril Poupon, Ching-Po Lin, *"Evaluation of Angular Uncertainties of q-space Diffusion MRI Under Finite Gradient Pulse Widths: A Phantom Study"*, 17th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, 2009

18. Yi-Ping Chao, **Kuan-Hung Cho**, Chun-Hung Yeh, Kun-Hsien Chou, Jyh-Horng Chen, Ching-Po Lin, "*Regional microstrucural differences of the corpus callosum using cytoarchitectural parcellation and DT-MRI*", 17th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, 2009

19. Yi-Ping Chao, Kun-Hsien Chou, **Kuan-Hung Cho**, Chun-Hung Yeh, Jyh-Horng Chen, Ching-Po Lin, "*Effects of Coregistration for the Reconstruction of High Angular Resolution Diffusion Imaging*", 17th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Honolulu, Hawaii, USA, 2009.

- *2008*

20. Chun-Hung Yeh, **Kuan-Hung Cho**, Alejandro Ribes, Ching-Po Lin, "*Evaluation of Angular Uncertainties of Diffusion MR Imaging Using Finite Diffusion Pulse Duration*", European Society for Magnetic Resonance in Medicine and Biology, Valencia, Spain, 2008

21. Chia-Ling Chen, **Kuan-Hung Cho**, Ke-Hsin Chen, Ching-Po Lin, "*Comparison of DT tractography algorithms with MEMRI and BOOT-TRAC.*" 16th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Toronto, USA, 2008.

22. Chun-Hung Yeh, **Kuan-Hung Cho**, Ching-Po Lin, "*Comparison between Q-Ball Reconstructions Using Radial Basis Function and Spherical Harmonic Basis Function.*" 16th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Toronto, USA, 2008.

23. Chun-Hung Yeh, Jacques-Donald Tournier, **Kuan-Hung Cho**, Ching-Po Lin, Fernando Calamante, Alan Connelly, "*Effect of Diffusion Gradient Pulse Duration on Fibre Orientation Estimation.*" 16th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Toronto, USA, 2008.

- *2007*

24. **Kuan-Hung Cho**, Tzi-Dar Chiueh, Ching-Po Lin, Casper K. Chen, Jyh-Horng Chen, "*An Active Noise Cancellation System for fMRI*", The Joint Meeting of he 6th International Symposium on Noninvasive Functional Source Imaging of the Brain and Heart & the International Conference on Functional Biomedical Imaging, Hangzhou , China, 2007

25. **Kuan-Hung Cho**, Chun-Hung Yeh, Hsuan-Cheng Lin, Jyh-Horng Chen, Ching-Po Lin, "*Evaluation of minimal angular discrimination for q-ball imaging: a phantom study*", 15th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Berlin, Germany, 2007.

26. Yi-Ping Chao, Chia-Yen Yang, **Kuan-Hung Cho**, Chun-Hung Yeh, Kun-Hsien Chou, Jyh-Horng Chen, Ching-Po Lin, "*The Development of Brain Connectivity Browser by Tractography of QBI*", 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Lyon, France , 2007.

27. Yi-Ping Chao, Kun-Hsien Chou, Chia-Yen Yang, **Kuan-Hung Cho**, Chun-Hung Yeh, Jyh-Horng Chen, Ching-Po Lin, "*New topological Mapping of Corpus Callosum by Connectivity of Cytoarchitecture*", 16th Triennial Conference for the International Society of Magnetic Resonance, Kenting, Taiwan , 2007

28. Yi-Ping Chao, Chia-Yen Yang, **Kuan-Hung Cho**, Chun-Hung Yeh, Kun-Hsien Chou, Jyh-Horng Chen, Ching-Po Lin," *Probabilistic Anatomical Connectivity Derived from QBI with MFACT Approach*", The Joint Meeting of the 6th International Symposium on Noninvasive Functional Source Imaging of the Brain and Heart & the International Conference on Functional Biomedical Imaging, Hangzhou , China, 2007, No.190.

29. Yi-Ping Chao, Shu-Ping Tsao, Kun-Hsien Chou, **Kuan-Hung Cho**, Chun-Hung Yeh , Jyh-Horng Chen, Ching-Po Lin, "*Subdivisions of Mid-sagittal Corpus Callosum by Cortico-cortical Connectivity with QBI Tractography*", 15th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Berlin, Germany, 2007.

30. Yi-Ping Chao, Chun-Hung Yeh, **Kuan-Hung Cho**, Jyh-Horng Chen, Ching-Po Lin, "*Multiple Streamline Tractography Approach with High Angular Resolution Diffusion Imaging Data*", 15th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Berlin, Germany, 2007.

31. Donald Tournier, **Kuan-Hung Cho**, Fernando Calamante, Chun-Hung Yeh, Alan Connelly, Ching-Po Lin, "*Resolving crossing fibres using constrained spherical deconvolution: validation using DWI phantom data*", 15th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Berlin, Germany, 2007.

32. Chun-Hung Yeh, **Kuan-Hung Cho**, Hsuan-Cheng Lin, Ching-Po Lin, "*Mapping Relative Fiber Density with Composite Q-Ball and Diffusion Tensor Imaging*", 15th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Berlin, Germany, 2007.

- *2006*

33. **Kuan-Hung Cho**, Chun-Hung Yeh, Yi-Ping Chao , Jyh-Horng Chen, Ching-Po Lin, "*Accuracy Assessment of q-ball Imaging with Phantom Models*", 14th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Seattle, USA, 2006.

34. **Kuan-Hung Cho**, Chun-Hung Yeh, Yi-Ping Chao , Jyh-Horng Chen, Ching-Po Lin, "*Reduce Encoding of Diffusion Spectrum Imaging with Cross-term Correction*", 14th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Seattle, USA, 2006.

35. Yi-Ping Chao, Jyh-Horng Chen, **Kuan-Hung Cho**, Chun-Hung Yeh, Kun-Hsien Chou, Sue-Ping Tsao, Ching-Po Lin, "*The development of brain connectivity browser by tractogrpahy of QBI*", International Symposium on Biomedical Engineering, Taipei, Taiwan , 2006.

36. Chun-Hung Yeh, **Kuan-Hung Cho**, Yi-Chia Li, Hsuan-Cheng Lin, Ching-Po Lin, "*Optimal Encoding Points for Diffusion Spectrum Imaging: Using Bi-Gaussian Extrapolation*", 14th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Seattle, USA, 2006.

37. Yi-Ping Chao, **Kuan-Hung Cho**, Chun-Hung Yeh, Sue-Ping Tsao, Der-Yow Chen, Jyh-Horng Chen, Ching-Po Lin, "*Brain Segmentation using ATP (Automatic Twice PAM) in Multi Diffusion Indices*", 14th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Seattle, USA, 2006.

38. Yi-Chia Li, **Kuan-Hung Cho**, Kun-Hsien Chou, Ching-Po. Lin, "*Optimal Imaging

Parameters for Minimum Angular Discrimination in Diffusion Spectrum Imaging", 14th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Seattle, USA, 2006.

- *2005*

39. **Kuan-Hung Cho**, Yi-Ping Chao, Yi-Chia Li, Jyh-Horng Chen, Ching-Po Lin, "*Mapping Fiber Density Distribution with Diffusion Spectrum Imaging*", ISMRM Workshop on Methods for Quantitative Diffusion MRI of Human Brain, 2005.

40. **Kuan-Hung Cho**, Yi-Ping Chao, Chun-Hung Yeh, Yi-Chia Li, Jyh-Horng Chen, Ching-Po Lin, "*Quantitative Mapping Fiber Density Using DSI Technique*"**,** 13th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Miami, USA, 2005.

41. Ching-Po Lin, **Kuan-Hung Cho**, Yi-Ping Chao**, "***Mapping of Fiber Orientation Function with Spherical Encoding*", ISMRM Workshop on Methods for Quantitative Diffusion MRI of Human Brain, 2005.

42. Chun-Hung Yeh, **Kuan-Hung Cho**, Yi-Ping Chao, Kun-Hsien Chou, Chien-Cheng Chen, Szu-Fu Chen, Ching-Po Lin ,"*Relationship between Neural Degeneration and Fractional Anisotropy: Simulation, Phantom Model, and Injured Rat Brain Study*", ISMRM Workshop on Methods for Quantitative Diffusion MRI of Human Brain, 2005.

43. Yi-Ping Chao, **Kuan-Hung Cho**, Chun-Hung Yeh, Der-Yow Chen, Jyh-Horng Chen, Ching-Po Lin, "*Segmentation of Neuroarchitecture by Classification of Diffusion Spectrum Image*", ISMRM Workshop on Methods for Quantitative Diffusion MRI of Human Brain, 2005.

44. Yi-Ping Chao, **Kuan-Hung Cho**, Chun-Hung Yeh, Jyh-Horng Chen, Ching-Po Lin, "*Mapping of Neural Architecture with Multi-Lines Diffusion Tensor First Eigenvector Field*", 13th Scientific Meeting & Exhibition of International Society for Magnetic Resonance in Medicine, Miami, USA, 2005.