

Dr. Ming-Yang Cheng

Academic curriculum vitae | public record

Sport Cognitive Neuroscience · Taiwan Institute of Sports Science · SPIN Lab

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Compiled 21 October 2026 from the academic records published on mingyangcheng.com. Citations retain their original wording.

Education

SEP 2014-JAN 2019 | Ph.D. · Psychology & Sports Science

Bielefeld University · Germany · Faculty of Psychology and Sports Science · Department of Sports Science · Neurocognition and Action – Biomechanics · Chair: Prof. Dr. Thomas Schack · Center for Cognitive Interaction Technology (CITEC, EXC 277) · Doctoral research training | CITEC, a German Cluster of Excellence. Completed doctoral training in Professor Thomas Schack's Neurocognition and Action – Biomechanics group at Bielefeld University. The research environment connected with the Center for Cognitive Interaction Technology (CITEC, EXC 277), supported by Germany's federal and state Excellence Initiative from 2007 to 2019. Integrating cognitive science, psychology, sport science and intelligent technology, CITEC provided an interdisciplinary setting for research and doctoral training.

DFG · EXC 277

CITEC · History

2009-2012 | M.Ed. · Sport Psychology

National Taiwan Normal University · Taiwan · Department of Physical Education and Sports Science · Sport & Exercise Psychophysiology Laboratory · Tsung-Min Hung Lab

2005-2009 | B.Ed. · Physical Education

National Kaohsiung Normal University · Taiwan · Department of Physical Education

Appointments and professional experience

2024-present | Associate Research Fellow

Taiwan Institute of Sports Science · Kaohsiung, Taiwan

2023-2024 | Associate Research Fellow

Beijing Sport University · School of Psychology · Beijing, China

2020-2022 | Associate Professor

Shanghai University of Sport · School of Psychology · Shanghai, China

2019-2020 | Co-founder & Head of Science

neuro11 GmbH · Essen, Germany

2019-2020 | Visiting Scholar

Johannes Gutenberg University Mainz · Institute of Sport Science · Department of Sport Psychology · Mainz, Germany · Collaborated with Professor Michael Doppelmayr and Dr Fabian Steinberg to develop methods combining EEG neurofeedback with football shooting practice, with the aim of improving shooting performance and translating sport neuroscience into practical training procedures.

<https://www.sportpsychologie.uni-mainz.de/2019/04/15/dr-ming-yang-cheng-zu-gast-in-der-abteilung-sportpsychologie/>

2014-2019 | Doctoral Researcher

Neurocognition and Action – Biomechanics · Chair: Prof. Dr. Thomas Schack · CITEC · Bielefeld University

Research funding and programmes

AUG 2026-JUL 2027 | Optimizing Sport Performance through Neurofeedback and Function-Specific Instruction: Dose-Response Effects, Training Response Profiles, and Stress-Related Generalization of Training Effects

National Science and Technology Council (NSTC) · Taiwan · PRINCIPAL INVESTIGATOR · NSTC 115-2410-H-A75-001

<https://www.nstc.gov.tw/>

2026 · TWO-YEAR PROGRAMME | From Brain to Movement: Neural Efficiency, Movement Readiness, and Field Translation in High-Performance Athletes

Taiwan Institute of Sports Science (TISS) · PRINCIPAL INVESTIGATOR

<https://www.tiss.org.tw/>

2025-2026 · EXTENDED | Optimizing Sport Performance through Neurofeedback and Function-Specific Training

National Science and Technology Council (NSTC) · Taiwan · PRINCIPAL INVESTIGATOR · NSTC 114-2410-H-A75-001

<https://www.nstc.gov.tw/>

2025 | Neural Mechanisms and Applications of Neurofeedback Training in Archery

Taiwan Institute of Sports Science (TISS) · PRINCIPAL INVESTIGATOR

<https://www.tiss.org.tw/>

2024-2025 | Neurofeedback for Stress Adaptation and Psychological Regulation in Sport

GASC · Key Laboratory of Sports Stress Adaptation · PRINCIPAL INVESTIGATOR · 2024YJSY003

<https://www.sport.gov.cn/>

2023-2026 | Neurofeedback Training for Sleep Quality: Applications across Health and Sport

Humanities and Social Sciences Research Fund · Ministry of Education, China · PRINCIPAL INVESTIGATOR · 23YJAZH217

<https://www.moe.gov.cn/>

2023-2025 | Enhancing Shooting Performance through Heart-Brain Interaction

Beijing Sport University · High-Quality Research Development Programme · CO-PRINCIPAL INVESTIGATOR

<https://en.bsu.edu.cn/>

2021-2024 | Cognitive Processing of Action-Anticipation Bias Monitoring in Elite Table-Tennis Athletes

National Natural Science Foundation of China (NSFC) · CO-PRINCIPAL INVESTIGATOR · 32071089

https://www.nsf.gov.cn/english/site_1/index.html

2019-2020 | Neuroscience-based training methods for football performance

EXIST Founder's Grant · German Federal Ministry for Economic Affairs and Energy · Co-founder & Head of Science · Led brain-training method development · 03EGSNW602

<https://exist.de/en/>

2018 | Neuropsychological Analysis of SMR Neurofeedback, Mental Representation, and Golf Putting

CITEC Cluster of Excellence Fund · Bielefeld University · PRINCIPAL INVESTIGATOR

<https://www.uni-bielefeld.de/zwe/citec/>

2017-2018 | The Effect of Sensorimotor Neurofeedback Training on Sport Performance

Bielefeld Young Researchers Fund · PRINCIPAL INVESTIGATOR

<https://www.uni-bielefeld.de/>

2016-2017 | SMR Neurofeedback, Mental Representation, and Golf Putting Performance

Bielefeld University · PRINCIPAL INVESTIGATOR · YOUNG RESEARCHER FELLOW

<https://www.uni-bielefeld.de/>

AUG 2026-JUL 2029 | Monitoring and Long-Term Evaluation Model of Competitive Mental Capacity (CMC) in Badminton

Taiwan Institute of Sports Science (TISS) · Commissioned research · CO-PRINCIPAL INVESTIGATOR

<https://www.tiss.org.tw/>

MAR 2026-FEB 2027 | Development of an Automated EEG Preprocessing and qEEG Feature Quantification System for Sports Applications

Taiwan Institute of Sports Science (TISS) · CO-PRINCIPAL INVESTIGATOR

<https://www.tiss.org.tw/>

Peer-reviewed journal articles

1. Cheng, M.-Y., Wang, K. P., Hung, T. M., Lu, C., Oh, H., Tan, Y. Y., & Hatfield, B. (2026). Neurocognitive and Autonomic Signatures of Performance Under Motivational Stress: An Integrated Psychophysiological Analysis of Reward and Punishment in Shooting Performance. *Scandinavian Journal of Medicine & Science in Sports*, 36(2), e70227.

<https://doi.org/10.1111/sms.70227>

2. Lu, G., Cheng, M.-Y., Li, D., Elbanna, H., & Wang, K.-P. (2026). Temporal dynamics of alpha-band cortico-cortical coherence during motor preparation for successful and unsuccessful football penalty kicks. *Frontiers in Psychology*, 17. Advance online publication.

<https://doi.org/10.3389/fpsyg.2026.1949955>

3. Zhang, M., Wei, C., Ding, C., Zhao, J., Sun, J., Lin, L., Chen, Y., Li, M., Li, X., Cheng, M.-Y., & Zhuang, J. (2026). Low-beta frequency band neurofeedback training: Effects on attentional orientation, executive control, and underlying neural mechanisms. *Behavioral and Brain Functions*.

<https://doi.org/10.1186/s12993-026-00351-z>

4. Lu, G., Hagan, J. E., Cheng, M.-Y., Li, D., & Wang, K. P. (2025). Amateurs exhibit greater psychomotor efficiency than novices: Evidence from EEG during a visuomotor task. *Frontiers in Psychology*, 16, 1436549.

<https://doi.org/10.3389/fpsyg.2025.1436549>

5. Yu, C. L., Cheng, M.-Y., An, X., Chueh, T. Y., Wu, J. H., Wang, K. P., & Hung, T. M. (2025). The effect of EEG neurofeedback training on sport performance: A systematic review and meta-analysis. *Scandinavian Journal of Medicine & Science in Sports*, 35(5), e70055.

Co-first author · 2026 · Ministry of Sports · Taiwan · Sport Science Research and Development Award - Honorable Mention

<https://doi.org/10.1111/sms.70055>

6. Yu, Y., Zhang, L., Cheng, M.-Y., Liang, Z., Zhang, M., & Qi, F. (2025). The effects of different fatigue types on action anticipation and physical performance in high-level volleyball players. *Journal of Sports Sciences*, 1-13.

<https://doi.org/10.1080/02640414.2025.2456399>

7. Yue, T., Su, H., Cheng, M.-Y., Wang, Y., & Qi, F. (2025). High-Intensity Interval Training Improves Inhibitory Control and Working Memory in Healthy Young Adults. *Journal of Human Kinetics*, 98, 41-56.

<https://doi.org/10.5114/jhk/194498>

8. Cheng, M.-Y., Yu, C. L., An, X., Wang, L., Tsai, C. L., Qi, F., & Wang, K. P. (2024). Evaluating EEG neurofeedback in sport psychology: A systematic review of RCT studies for insights into mechanisms and performance improvement. *Frontiers in Psychology*, 15, 1331997.

<https://doi.org/10.3389/fpsyg.2024.1331997>

9. An, X., Lian, J., Xu, L., Peng, Z., Chen, S., Cheng, M.-Y., & Shao, Y. (2023). Changes in electroencephalography microstates are associated with reduced levels of vigilance after sleep deprivation. *Brain Research*, 148729.

<https://doi.org/10.1016/j.brainres.2023.148729>

10. Cheng, M.-Y., Wang, K. P., Doppelmayr, M., Steinberg, F., Hung, T. M., Lu, C., Tan, Y. Y., & Hatfield, B. (2023). QEEG markers of superior shooting performance in skilled marksmen: An investigation of cortical activity on psychomotor efficiency hypothesis. *Psychology of Sport and Exercise*, 65, 102320.

<https://doi.org/10.1016/j.psychsport.2022.102320>

11. Pourbehbahani, Z., Saemi, E., Cheng, M.-Y., & Dehghan, M. R. (2023). Both sensorimotor rhythm neurofeedback and self-controlled practice enhance motor learning and performance in novice golfers. *Behavioral Sciences*, 13(1), 65.

<https://doi.org/10.3390/bs13010065>

12. Shao, Y., Peng, Z., Xu, L., Lian, J., An, X., & Cheng, M.-Y. (2023). Decrease in the P2 amplitude of object working memory after 8 h-recovery sleep following 36 h-total sleep deprivation: An ERP study. *Brain Sciences*, 13(10), 1470.

<https://doi.org/10.3390/brainsci13101470>

13. Wang, K. P., Cheng, M.-Y., Elbanna, H., & Schack, T. (2023). A new EEG neurofeedback training approach in sports: The effects function-specific instruction of Mu rhythm and visuomotor skill performance. *Frontiers in Psychology*, 14, 1273186.

<https://doi.org/10.3389/fpsyg.2023.1273186>

14. Thomas, F., Steinberg, F., Pixa, N. H., Berger, A., Cheng, M.-Y., & Doppelmayr, M. (2021). Prefrontal high definition cathodal tDCS modulates executive functions only when coupled with moderate aerobic exercise in healthy persons. *Scientific Reports*, 11, 8457.

<https://doi.org/10.1038/s41598-021-87914-4>

15. Wang, K. P., Cheng, M.-Y., Chen, T. T., Lin, K. H., Huang, C. J., Schack, T., & Hung, T. M. (2021). Successful motor performance of a difficult task: Reduced cognitive-motor coupling. *Sport, Exercise, and Performance Psychology*, 11(2), 174-184.

2021 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Excellence Award

<https://doi.org/10.1037/spy0000279>

16. Wang, K. P., Frank, C., Tsai, Y. Y., Lin, K. H., Chen, T. T., Cheng, M.-Y., Huang, C. J., Hung, T. M., & Schack, T. (2021). Superior performance in skilled golfers characterized by dynamic neuromotor processes related to attentional focus. *Frontiers in Psychology*, 12, 633228.

<https://doi.org/10.3389/fpsyg.2021.633228>

17. Thomas, F., Pixa, N. H., Berger, A., Cheng, M.-Y., Doppelmayr, M., & Steinberg, F. (2020). Neither cathodal nor anodal transcranial direct current stimulation on the left dorsolateral prefrontal cortex alone or applied during moderate aerobic exercise modulates executive function. *Neuroscience*, 443, 71-83.

<https://doi.org/10.1016/j.neuroscience.2020.07.017>

18. Wang, K. P., Cheng, M.-Y., Chen, T. T., Huang, C. J., Schack, T., & Hung, T. M. (2020). Elite golfers are characterized by psychomotor refinement in cognitive-motor processes. *Psychology of Sport and Exercise*, 50, 101739.

2021 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Excellence Award

<https://doi.org/10.1016/j.psychsport.2020.101739>

19. Chen, T. T., Wang, K. P., Cheng, M.-Y., Chang, Y. T., Huang, C. J., & Hung, T. M. (2019). Impact of emotional and motivational regulation on putting performance: A frontal alpha asymmetry study. *PeerJ*, 7, e6777.

2019 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Grade A Award

<https://doi.org/10.7717/peerj.6777>

20. Wang, K. P., Cheng, M.-Y., Chen, T. T., Chang, Y. K., Huang, C. J., Feng, J., Hung, T. M., & Ren, J. (2019). Experts' successful psychomotor performance was characterized by effective switch of motor and attentional control. *Psychology of Sport and Exercise*, 43, 374-379.

2020 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Excellence Award

<https://doi.org/10.1016/j.psychsport.2019.04.006>

21. Cheng, M.-Y. (2017a). Application of sensorimotor rhythm on sport performance enhancement. *Research & Investigations in Sports Medicine*, 23(2), 83-87.

<https://doi.org/10.31031/rism.2017.01.000507>

22. Cheng, M.-Y., Wang, K. P., Hung, C. L., Tu, Y. L., Huang, C. J., Koester, D., Schack, T., & Hung, T. M. (2017). Higher power of sensorimotor rhythm is associated with better performance in skilled air-pistol shooters. *Psychology of Sport and Exercise*, 32, 47-53.

2019 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Distinguished Award

<https://doi.org/10.1016/j.psychsport.2017.05.007>

23. Cheng, M.-Y., Huang, C. J., Chang, Y. K., Koester, D., Schack, T., & Hung, T. M. (2015). Sensorimotor rhythm neurofeedback enhances golf putting performance. *Journal of Sport and Exercise Psychology*, 37(6), 626-636.

2017 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Excellence Award

<https://doi.org/10.1123/jsep.2015-0166>

24. Cheng, M.-Y., Hung, C. L., Huang, C. J., Chang, Y. K., Lo, L. C., Shen, C., & Hung, T. M. (2015). Expert-novice differences in SMR activity during dart throwing. *Biological Psychology*, 110, 212-218.

2017 · Sports Administration, Ministry of Education · Taiwan · Sports Science Research and Development Excellence Award

<https://doi.org/10.1016/j.biopsycho.2015.08.003>

Books and chapters

Cheng, M.-Y., & Hung, T. M. (2020a). Biofeedback and neurofeedback for mental skills training in sports. In M. Bertollo, E. Filho, & P. C. Terry (Eds.), *Advancements in mental skills training* (1st ed., pp. 149-163). Routledge. <https://doi.org/10.4324/9780429025112-14>

Cheng, M.-Y., & Hung, T. M. (2020b). Performance and brain in sport. In D. Hackfort & R. J. Schinke (Eds.), *The Routledge international encyclopedia of sport and exercise psychology: Volume 2* (1st ed., pp. 472-491). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315187228-32/performance-brain-sport-ming-yang-cheng-tsung-min-hung>

Hung, T.-M., & Cheng, M.-Y. (2018). Neurofeedback in sport: Theory, methods, research, and efficacy. In R. A. Carlstedt & M. Balconi (Eds.), *Handbook of sport neuroscience and psychophysiology* (1st ed., pp. 304-319). Routledge. <https://doi.org/10.4324/9781315723693-14>

Hung, T.-M., & Cheng, M.-Y. (2019a). Entry: Alertness. In D. Hackfort, R. J. Schinke, & B. Strauss (Eds.), *Dictionary of Sport Psychology* (1st ed., p. 10). Academic Press. <https://doi.org/10.1016/C2016-0-03935-9>

Hung, T.-M., & Cheng, M.-Y. (2019b). Entry: Attention training. In D. Hackfort, R. J. Schinke, & B. Strauss (Eds.), *Dictionary of Sport Psychology* (1st ed., p. 23). Academic Press. <https://doi.org/10.1016/C2016-0-03935-9>

Hung, T.-M., & Cheng, M.-Y. (2019c). Entry: Attentional style. In D. Hackfort, R. J. Schinke, & B. Strauss (Eds.), *Dictionary of Sport Psychology* (1st ed., p. 22). Academic Press.

<https://doi.org/10.1016/C2016-0-03935-9>

Hung, T.-M., & Cheng, M.-Y. (2019d). Entry: Open and closed skill. In D. Hackfort, R. J. Schinke, & B. Strauss (Eds.), *Dictionary of Sport Psychology* (1st ed., p. 201). Academic Press.

<https://doi.org/10.1016/C2016-0-03935-9>

Other academic outputs

Cheng, M.-Y. (2019). The sports performance enhancement by using the sensorimotor rhythm neurofeedback training [Doctoral dissertation, Bielefeld University].

<https://doi.org/10.4119/unibi/2933504>

Cheng, M.-Y., & Hung, T. M. (2012). Application of sensory motor rhythm on enhancing sport performance. *Sports Research Review* (Chinese).

Conference contributions

2026 | Neural Readiness and Psychological Regulation at TASM 2026

. TASM Autumn Symposium · Team Behind the Team. GIS NTU Convention Center, Taipei · 18 October 2026 · Invited talk

2026 | Research Presentation at the 2026 National Science and Technology Council (NSTC) Sports Research Conference

. 2026 NSTC Sports Research Conference. Kuang-Fu Campus, National Cheng Kung University, Tainan · 17 October 2026 · Poster

2026 | From Brain Readiness to Sport Performance: Graduate Research Seminar at KMU

. Graduate research seminar · Department of Sports Medicine, KMU. Department of Sports Medicine, Kaohsiung Medical University · 12 October 2026 · Invited talk

2026 | Psychological science for sport performance

. Professional education · ATPC. Taiwan · 14 June 2026 · Invited talk

2026 | Neurofeedback and Integration for Mind-Body Unity in Sport

. NIMBUS symposium. Taiwan · 28 March 2026 · Invited talk

2026 | SMR neurofeedback × function-specific instruction in precision archery

Ming-Yang Cheng and collaborators. FEPSAC 2026 · European Congress of Sport and Exercise Psychology. Timișoara, Romania · 13-17 July 2026 · Oral

2025 | The effects of situational motivation on state anxiety and SMR power in experienced shooters

Luo, X., Cheng, M.-Y., & Shao, Y.. 16th International Society of Sport Psychology Congress. Hong Kong · 8-12 December 2025 · Poster

2025 | Characterizing novice and amateur brain activity: an EEG study in a visuomotor task

Wang, K. P., Lu, G., Hagan, J. E., Cheng, M.-Y., Chen, L. J., Lin, F. Y., & Lu, C. J.. 16th International Society of Sport Psychology Congress. Hong Kong · 8-12 December 2025 · Poster

2024 | Function-specific instruction with neurofeedback changes frontal-midline theta and boosts motor performance in novice golfers

Wang, K. P., Cheng, M.-Y., Elbanna, H., & Schack, T.. 17th European Congress of Sport and Exercise Psychology (FEPSAC). Innsbruck, Austria · 15-19 July 2024 · Poster

2023 | Brain mechanisms of emotion and attention in high-level motor performance: an EEG and heart-rate study

Cheng, M.-Y., Wang, K. P., Hung, T. M., Lu, C., Tan, Y. Y., & Hatfield, B.. 13th National Convention on Sport Science of China. Tianjin, China · 13-15 November 2023 · Poster

2023 | Enhancing athletic performance with neurofeedback: single-session effects and brain mechanisms

Cheng, M.-Y., Wang, K. P., & Schack, T.. 13th National Convention on Sport Science of China. Tianjin, China · 13-15 November 2023 · Poster

2023 | The effect of electroencephalographic neurofeedback training on sport performance: a meta-analysis

An, X., Cheng, M.-Y., & Shao, Y.. 25th National Academic Conference of Psychology. Chengdu, China · 13-15 October 2023 · Poster

2020 | The mystery behind excellence: EEG analysis and neurofeedback training in sport psychology

Cheng, M.-Y.. Frontier Academic Forum, School of Psychology. Shanghai, China · November 2020 · Invited talk

2020 | Applying tDCS during aerobic exercise: acute offline effects on executive functions and perceived exertion

Steinberg, F., Thomas, F., Berger, A., Pixa, N. H., Cheng, M.-Y., & Doppelmayr, M.. 7th International Conference on Non-Invasive Brain Stimulation. Baden-Baden, Germany · 11-15 October 2020 · Poster

2020 | Applying tDCS during aerobic exercise: acute online effects on executive functions and perceived exertion

Thomas, F., Berger, A., Pixa, N. H., Cheng, M.-Y., Doppelmayr, M., & Steinberg, F.. 7th International Conference on Non-Invasive Brain Stimulation. Baden-Baden, Germany · 11-15 October 2020 · Poster

2020 | Effects of transcranial direct-current stimulation during aerobic exercise on cognition, perceived exertion, and cycling performance

Thomas, F., Berger, A., Pixa, N. H., Cheng, M.-Y., Doppelmayr, M., & Steinberg, F.. 67th American College of Sports Medicine Annual Meeting. San Francisco, USA · 26-30 May 2020 · Poster

2019 | Sport performance enhancement with EEG neurofeedback training: current topics and issues

Cheng, M.-Y.. International Psychology of Young Scholars. Beijing, China · October 2019 · Invited talk

2019 | Performance enhancement with EEG neurofeedback training: current topics and issues

Cheng, M.-Y., Schack, T., Wang, K. P., Hung, T. M., & Zhou, C.. 15th European Congress of Sport and Exercise Psychology (FEPSAC). Münster, Germany · July 2019 · Symposium

2018 | Miss your putts? The key EEG index to achieve superior golf-putting performance

Cheng, M.-Y., Wang, K. P., Koester, D., Hung, T. M., & Schack, T.. Asia Conference on Kinesiology. Taichung, Taiwan · October 2018 · Oral

2018 | Lower top-down attention and higher motor control are associated with better putting performance in expert golfers

Kao, C. W., Wang, K. P., Chen, T. T., Cheng, M.-Y., & Hung, T. M.. Asia Conference on Kinesiology. Taichung, Taiwan · 2-5 November 2018 · Poster

2018 | Skilled golf putting was characterized by higher visuospatial attention

Chang, W. H., Wang, K. P., Chen, T. T., Cheng, M.-Y., & Hung, T. M.. Asia Conference on Kinesiology. Taichung, Taiwan · 2-5 November 2018 · Poster

2018 | Miss your putts? The key EEG index to achieve superior golf-putting performance

Cheng, M.-Y., Wang, K. P., Koester, D., Hung, T. M., & Schack, T.. Movementis. Boston, USA · 27-29 July 2018 · Poster

2018 | Proficient brain activity in superior golf putting performance: an insight from EEG and psychomotor efficiency

Cheng, M.-Y., Wang, K. P., Koester, D., Hung, T. M., & Schack, T.. North American Society for the Psychology of Sport and Physical Activity Annual Conference. Denver, USA · 21-23 June 2018 · Poster

2017 | The effects of SMR/theta-ratio neurofeedback training on golf-putting performance

Hung, T. M., Chang, I. T., Cheng, M.-Y., & Huang, C. J.. 14th World Congress of the International Society of Sport Psychology. Seville, Spain · July 2017 · Symposium

2017 | Improving shooting performance with neurofeedback: an insight from EEG and psychomotor efficiency

Cheng, M.-Y., Koester, D., & Schack, T.. 2nd European Seminar of Sport & Exercise Psychology. Pisa, Italy · 28-30 September 2017 · Poster

2016 | Enhancing golf-putting performance by neurofeedback training

Cheng, M.-Y., Koester, D., & Schack, T.. German Society for Sport Psychology Conference. Münster, Germany · May 2016 · Symposium

2015 | Differences in mu rhythm between successful and unsuccessful golf-putting performance in skilled golfers

Wang, K. P., Chen, T. T., Chang, Y. T., Cheng, M.-Y., Huang, C. J., & Hung, T. M.. North American Society for the Psychology of Sport and Physical Activity Annual Conference. Portland, USA · July 2015 · Oral

2015 | EEG coherence of mu rhythm in successful and unsuccessful golf putting in skilled golfers

Wang, K. P., Chen, T. T., Su, J. Y., Cheng, M.-Y., Huang, C. J., Hoa, C., & Hung, T. M.. 23rd International Society for Neurofeedback & Research Conference. Denver, USA · 15-18 October 2015 · Poster

2015 | Sensorimotor rhythm and frontal-midline theta during successful and unsuccessful putting under pressure

Chen, T. T., Wang, K. P., Cheng, M.-Y., Huang, C. J., & Hung, T. M.. 23rd International Society for Neurofeedback & Research Conference. Denver, USA · 15-18 October 2015 · Poster

2015 | Intra-hemispheric theta coherence in successful and unsuccessful golf putting

Hoa, C., Chen, T. T., Wang, K. P., Cheng, M.-Y., & Hung, T. M.. 23rd International Society for Neurofeedback & Research Conference. Denver, USA · 15-18 October 2015 · Poster

2015 | Effect of SMR neurofeedback training on golf-putting performance and mental representation

Cheng, M.-Y., Koester, D., & Schack, T.. 14th European Congress of Sport Psychology (FEPSAC). Bern, Switzerland · 14-19 July 2015 · Poster

2014 | Differences in sensorimotor mu rhythm between experts and novices in successful golf-putting performance

Wang, K. P., Cheng, M.-Y., Shen, C., Huang, C. J., & Hung, T. M.. 19th European College of Sport Science Congress. Amsterdam, the Netherlands · 2-5 July 2014 · Poster

Awards and recognition

2026 | Sport Science Research and Development Award - Honorable Mention

Ministry of Sports · Taiwan · Co-first author · The Effect of EEG Neurofeedback Training on Sport Performance: A Systematic Review and Meta-Analysis

<https://doi.org/10.1111/sms.70055>

2021 | Sports Science Research and Development Excellence Award

Sports Administration, Ministry of Education · Taiwan · Elite golfers are characterized by psychomotor refinement in cognitive-motor processes

<https://doi.org/10.1016/j.psychsport.2020.101739>

2021 | Sports Science Research and Development Excellence Award

Sports Administration, Ministry of Education · Taiwan · Successful motor performance of a difficult task:
Reduced cognitive-motor coupling

<https://doi.org/10.1037/spy0000279>

2020 | Sports Science Research and Development Excellence Award

Sports Administration, Ministry of Education · Taiwan · Experts' successful psychomotor performance
was characterized by effective switch of motor and attentional control

<https://doi.org/10.1016/j.psychsport.2019.04.006>

2019 | Sports Science Research and Development Distinguished Award

Sports Administration, Ministry of Education · Taiwan · Higher power of sensorimotor rhythm is
associated with better performance in skilled air-pistol shooters

<https://doi.org/10.1016/j.psychsport.2017.05.007>

2019 | Sports Science Research and Development Grade A Award

Sports Administration, Ministry of Education · Taiwan · Impact of emotional and motivational regulation
on putting performance: A frontal alpha asymmetry study

<https://doi.org/10.7717/peerj.6777>

2018 | Young Investigator Award

Asia Conference of Kinesiology · Miss your putts? The key EEG index to achieve superior golf-putting
performance

/presentations#year-2018

2017 | Sports Science Research and Development Excellence Award

Sports Administration, Ministry of Education · Taiwan · Sensorimotor rhythm neurofeedback enhances
golf putting performance

<https://doi.org/10.1123/jsep.2015-0166>

2017 | Sports Science Research and Development Excellence Award

Sports Administration, Ministry of Education · Taiwan · Expert-novice differences in SMR activity during
dart throwing

<https://doi.org/10.1016/j.biopsycho.2015.08.003>

2017 | Young Investigator Award

Asia Conference of Kinesiology · Recognition for an emerging research programme in sport cognitive
neuroscience

/presentations#year-2017

2017 | Outstanding Young Researcher Award

Bielefeld University · Germany · Doctoral research in EEG neurofeedback, movement representation, and precision performance

<https://www.uni-bielefeld.de/>

2017 | Best Poster Award

European Seminar of Sport & Exercise Psychology · Pisa, Italy · Improving shooting performance with neurofeedback: EEG and psychomotor efficiency

[/presentations#year-2017](#)

Academic service and teaching

Editorial board service

Frontiers in Psychology · PeerJ · BMC Psychology · Journal of Science in Sport and Exercise · Editorial service across multidisciplinary psychology, behavioural science, and sport and exercise research.

International journal peer review

Psychophysiology · Psychology of Sport and Exercise · Scandinavian Journal of Medicine & Science in Sports · Review service also includes Biological Psychology, Behavioural Brain Research, Cognitive Neurodynamics, Frontiers in Behavioral Neuroscience, and the International Journal of Sport and Exercise Psychology.

University teaching

Beijing Sport University · Shanghai University of Sport · Bielefeld University · Graduate and undergraduate teaching has covered sport and exercise psychology, sport psychophysiology, experimental methods, motor learning and control, and applied sport cognitive neuroscience.

Research supervision & mentoring

Master's research · doctoral mentoring · mobile EEG · scientific writing · Supervision has supported master's and doctoral researchers across the full research cycle: question formulation, experimental design, mobile-EEG acquisition, neurofeedback development, data analysis, thesis preparation, and scientific publication across institutions in China, Germany, and the Netherlands.

Scientific coordination

NIMBUS 2026 · NeuroDoWo 2016 · Cognitive Neuroscience in Sports 2015 · Scientific coordination has connected doctoral training, international cognitive-neuroscience dialogue, and current interdisciplinary translation at the Taiwan Institute of Sports Science. In 2026, Cheng convened the Neurofeedback and Integration for Mind-Body Unity in Sport (NIMBUS) symposium, bringing neurofeedback, mind-body integration, and sport performance into one shared programme.

Professional memberships

Society for Sport and Exercise Psychology of Taiwan

<https://www.ssept.org.tw/>

Taiwan Association of Biofeedback and Neurofeedback

<https://tabn.org/>

European Federation of Sport Psychology

<https://fepsac.com/>

International Society of Sport Psychology

<https://issponline.org/>

North American Society for the Psychology of Sport and Physical Activity

<https://www.naspspa.com/>