Stanford

Yu Zhang

Assistant Professor (Research) of Psychiatry and Behavioral Sciences (Public Mental Health and Population Sciences)

Bio

BIO

Dr. Yu Zhang's research operates at the intersection of AI, translational neuroscience, and precision medicine. His work focuses on unraveling the complex neurobiological mechanisms underlying cognitive deficits, behavioral dysfunctions, and therapeutic responses in mental health disorders. By integrating advanced machine learning techniques with multimodal brain imaging modalities (e.g., fMRI, DTI, EEG), Dr. Zhang aims to identify neural signatures that reveal the heterogeneity of mental disorders across individuals. A central goal of his research is the development and validation of robust neurobiomarkers to improve diagnostic accuracy, refine prognostic assessments, and guide personalized treatment strategies. His work systematically characterizes brain function and dysfunction to optimize therapeutic interventions, including pharmacological treatments, psychotherapy, and neurostimulation. He is particularly focused on conditions such as Alzheimer’s disease and related dimentia, mood disorders, and neurodevelopmental disorders (e.g., ADHD, ASD), where individualized approaches are essential for improving patient outcomes.

Dr. Zhang has received multiple grants including the NIH R01, R21, Eagles Autism Foundation Translational Grant, Alzheimer's Association Research Grant (AARG), and the Knight Initiative for Brain Resilience and the Rosenkranz Foundation Grants. Beyond foundational research, Dr. Zhang is committed to bridging the gap between computational innovation and clinical application. By collaborating with clinicians, neuroscientists, and engineers, he strives to translate data-driven insights into actionable tools for real-world healthcare settings. His long-term vision is to enable mental health diagnostics and treatment to be guided by objective, biologically grounded biomarkers, thereby enhancing quality of life and long-term outcomes for individuals with psychiatric and neurological conditions.

The Stanford Precision NeuroIntelligence (SPNI) Lab, led by Dr. Zhang, is dedicated to advancing research in AI-driven neuroimaging and precision psychiatry. The lab develops and applies cutting-edge machine learning and deep learning methods to uncover neurobiological mechanisms associated with cognitive and behavioral dysfunctions, as well as treatment responses in mental health conditions. Its mission is to identify translational biomarkers that support precision diagnosis, prognosis, and targeted interventions for mood disorders, neurodevelopmental disorders, and neurodegenerative diseases.

ACADEMIC APPOINTMENTS

- Assistant Professor (Research), Psychiatry and Behavioral Sciences
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Program Committee Member, Society of Biological Psychiatry (2025)
- Interdisciplinary Research Excellence Award, Lehigh University (2024)
- Senior Member, IEEE (2018-Present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Technical Program Committee, International Symposium on Biomedical Imaging (2026 - 2026)
- Editorial Board Member, Artificial Intelligence in Health (2023 - present)
- Associate Editor, Frontiers in Neuroscience (2020 - present)
- Associate Editor, Network Modeling Analysis in Health Informatics and Bioinformatics (2020 - present)
- Program Chair, International Conference on Brain Informatics (2023 - 2023)
- Program Committee Member, International Joint Conference on Artificial Intelligence (2019 - 2020)

PROFESSIONAL EDUCATION

- Postdoctoral Research Fellow, Stanford University (2020)
- Postdoctoral Research Fellow, University of North Carolina at Chapel Hill (2017)
- Ph.D., ECUST, China (2013)
- Research Associate, RIKEN, Japan (2012)

LINKS

- Stanford Precision NeuroIntelligence Lab: http://spnilab.weebly.com

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Kanhao Zhao

Doctoral Dissertation Advisor (AC)

Sabra Sisler

Postdoctoral Research Mentor

Meishan Ai, Xiaoyu Tong

Publications

PUBLICATIONS

- **Plasma biomarker-informed brain topology for cognitive resilience: applications in non-pharmacological interventions concerning cognitive aging** *ALZHEIMER'S & DEMENTIA: DIAGNOSIS, ASSESSMENT & DISEASE MONITORING*
  Ai, M., Zhou, S., Li, D., Yu, F., Heffner, K. L., Zhang, Y., Lin, F.
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- **Plasma biomarker-informed brain topology for cognitive resilience: applications in non-pharmacological interventions concerning cognitive aging.** *Alzheimer's & dementia (Amsterdam, Netherlands)*
  Ai, M., Zhou, S., Li, D., Yu, F., Heffner, K. L., Zhang, Y., Lin, F. V.
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- **Resting-state fMRI foundation models enable robust and generalizable latent neural target discovery in cognitive aging interventions.** *bioRxiv : the preprint server for biology*
  Zhou, X., Ai, M., Adeli, E., Zhang, Y., Liu, Y. M., Vankee-Lin, F.
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- **Distributed neural signatures of discomfort induced by transcranial magnetic stimulation.** *bioRxiv : the preprint server for biology*
  Li, Z., Jiao, Y., Zhang, Y., Zhang, N., Etkin, A., Boes, A. D., Oathes, D. J., Jiang, J.
  2026

- **Generalizable structure-function covariation predictive of antidepressant response revealed by target-oriented multimodal fusion** *NATURE MENTAL HEALTH*
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  2025

- **Brain-Cognition Fingerprinting via Graph-GCCA with Contrastive Learning.** *Machine learning in clinical neuroimaging : 7th international workshop, MLCN 2024, held in conjunction with MICCAI 2024, Marrakesh, Morocco, October 10, 2024, proceedings. MLCN (Workshop) (7th : 2024 : Marrakesh, Morocco)*
  Wang, Y., Peng, W., Zhang, Y., Adeli, E., Zhao, Q., Pohl, K. M.
  2025; 15266: 24-34

- **A functional system-informed graph neural network framework to quantify interpretable brain dysfunction in ASD.** *Neural networks : the official journal of the International Neural Network Society*
  Jiao, Y., Wei, X., He, L., Zhang, Y.
  2025; 195: 108295

- **Deep Learning of Brain-Behavior Dimensions Identifies Transdiagnostic Biotypes in Youth with ADHD and Anxiety Disorders.** *bioRxiv : the preprint server for biology*
  Jiao, Y., Tong, X., Fonzo, G. A., Gotlib, I. H., Pohl, K. M., Satterthwaite, T. D., Jiang, J., Zhang, Y.
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- **Early Brain Functional Connectivity Changes Induced by Antidepressants and Placebo.** *bioRxiv : the preprint server for biology*
  Tong, X., Fonzo, G. A., Carlisle, N. B., Xie, H., Berdichevsky, Y., Keller, C. J., Oathes, D. J., Nemeroff, C. B., Zhang, Y.
  2025

- **Harnessing electroencephalography connectomes for cognitive and clinical neuroscience.** *Nature biomedical engineering*
  Zhang, Y., Chen, Z. S.
  2025

- **Functional Connectome of Superagers Reveals Early Markers of Resilience and Vulnerability to Alzheimer's Disease.** *bioRxiv : the preprint server for biology*
  Zhao, K., Xie, H., Fonzo, G. A., Carlisle, N. B., Jacobs, T., Osorio, R. S., Church, A., Lin, F. V., Zhang, Y., ADNI Study Group
  2025

- **Multiband EEG signatures decoded using machine learning for predicting rTMS treatment response in MDD.** *Journal of affective disorders*
  Arteaga, A., Tong, X., Zhao, K., Carlisle, N. B., Oathes, D. J., Fonzo, G. A., Keller, C. J., Zhang, Y.
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- **Contrastive functional connectivity defines neurophysiology-informed symptom dimensions in major depression.** *Cell reports. Medicine*
  Zhu, H., Tong, X., Carlisle, N. B., Xie, H., Keller, C. J., Oathes, D. J., Liu, F., Nemeroff, C. B., Fonzo, G. A., Zhang, Y.
  2025: 102151

- **Multi-modal cross-domain self-supervised pre-training for fMRI and EEG fusion.** *Neural networks : the official journal of the International Neural Network Society*
  Wei, X., Zhao, K., Jiao, Y., Carlisle, N. B., Xie, H., Fonzo, G. A., Zhang, Y.
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- **Deep graph learning of multimodal brain networks defines treatment-predictive signatures in major depression.** *Molecular psychiatry*
  Jiao, Y., Zhao, K., Wei, X., Carlisle, N. B., Keller, C. J., Oathes, D. J., Fonzo, G. A., Zhang, Y.
  2025

- **Diffusion transformer-augmented fMRI functional connectivity for enhanced autism spectrum disorder diagnosis.** *Journal of neural engineering*
  Zhao, H., Lou, H., Yao, L., Zhang, Y.
  2025; 22 (1)
- **Normative Modeling with Focal Loss and Adversarial Autoencoders for Alzheimer's Disease Diagnosis and Biomarker Identification**
  Zhao, S., Zhou, R., Zhang, Y., Chen, Y., He, L.
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  SPRINGER INTERNATIONAL PUBLISHING AG.2025: 231-240
- **Multi-Modal Diagnosis of Alzheimer's Disease Using Interpretable Graph Convolutional Networks.** *IEEE transactions on medical imaging*
  Zhou, H., He, L., Chen, B. Y., Shen, L., Zhang, Y.
  2025; 44 (1): 142-153
- **CRISPR-GEM: A Novel Machine Learning Model for CRISPR Genetic Target Discovery and Evaluation.** *ACS synthetic biology*
  Graham, J. P., Zhang, Y., He, L., Gonzalez-Fernandez, T.
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- **Contrastive Functional Connectivity Defines Neurophysiology-informed Symptom Dimensions in Major Depression.** *bioRxiv : the preprint server for biology*
  Zhu, H., Tong, X., Carlisle, N. B., Xie, H., Keller, C. J., Oathes, D. J., Nemeroff, C. B., Fonzo, G. A., Zhang, Y.
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- **Evaluating the Quality of Brain MRI Generators.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
  Wu, J., Peng, W., Li, B., Zhang, Y., Pohl, K. M.
  2024; 15010: 297-307
- **XDL-ESI: Electrophysiological Sources Imaging via explainable deep learning framework with validation on simultaneous EEG and iEEG.** *NeuroImage*
  Jiao, M., Xian, X., Wang, B., Zhang, Y., Yang, S., Chen, S., Sun, H., Liu, F.
  2024; 299: 120802
- **Multiband EEG signature decoded using machine learning for predicting rTMS treatment response in major depression.** *medRxiv : the preprint server for health sciences*
  Arteaga, A., Tong, X., Zhao, K., Carlisle, N. B., Oathes, D. J., Fonzo, G. A., Keller, C. J., Zhang, Y.
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- **Dementia Subtypes Defined Through Neuropsychiatric Symptom-Associated Brain Connectivity Patterns.** *JAMA network open*
  Zhao, K., Xie, H., Fonzo, G. A., Carlisle, N. B., Osorio, R. S., Zhang, Y.
  2024; 7 (7): e2420479
- **Adaptive Multimodel Knowledge Transfer Matrix Machine for EEG Classification.** *IEEE transactions on neural networks and learning systems*
  Liang, S., Hang, W., Lei, B., Wang, J., Qin, J., Choi, K. S., Zhang, Y.
  2024; 35 (6): 7726-7739
- **Identifying Brain-Clinical Dimensions in Major Depression Using Contrastive Connectivity Analysis**
  Zhu, H., Tong, X., Fonzo, G., Oathes, D., Keller, C., Zhang, Y.
  ELSEVIER SCIENCE INC.2024: S166
- **Enabling temporal-spectral decoding in multi-class single-side upper limb classification** *ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE*
  Jia, H., Han, S., Caiafa, C. F., Duan, F., Zhang, Y., Sun, Z., Sole-Casals, J.
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- **Optimizing Antidepressant Efficacy: Multimodal Neuroimaging Biomarkers for Prediction of Treatment Response.** *medRxiv : the preprint server for health sciences*
  Tong, X., Zhao, K., Fonzo, G. A., Xie, H., Carlisle, N. B., Keller, C. J., Oathes, D. J., Sheline, Y., Nemeroff, C. B., Williams, L. M., Trivedi, M., Etkin, A., Zhang, et al
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- **Discriminative functional connectivity signature of cocaine use disorder links to rTMS treatment response.** *Nature. Mental health*
  Zhao, K., Fonzo, G. A., Xie, H., Oathes, D. J., Keller, C. J., Carlisle, N. B., Etkin, A., Garza-Villarreal, E. A., Zhang, Y.
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- **Symptom dimensions of resting-state electroencephalographic functional connectivity in autism.** *Nature. Mental health*
  Tong, X., Xie, H., Fonzo, G. A., Zhao, K., Satterthwaite, T. D., Carlisle, N. B., Zhang, Y.
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- **Early prediction of dementia using fMRI data with a graph convolutional network approach.** *Journal of neural engineering*
  Han, S., Sun, Z., Zhao, K., Duan, F., Caiafa, C. F., Zhang, Y., Solé-Casals, J.
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- **Individual deviations from normative electroencephalographic connectivity predict antidepressant response.** *Journal of affective disorders*
  Tong, X., Xie, H., Wu, W., Keller, C. J., Fonzo, G. A., Chidharom, M., Carlisle, N. B., Etkin, A., Zhang, Y.
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- **Sparse Bayesian Learning for End-to-End EEG Decoding.** *IEEE transactions on pattern analysis and machine intelligence*
  Wang, W., Qi, F., Wipf, D. P., Cai, C., Yu, T., Li, Y., Zhang, Y., Yu, Z., Wu, W.
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- **Assessing the Potential of Data Augmentation in EEG Functional Connectivity for Early Detection of Alzheimer's Disease** *COGNITIVE COMPUTATION*
  Jia, H., Huang, Z., Caiafa, C. F., Duan, F., Zhang, Y., Sun, Z., Sole-Casals, J.
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- **Multi-Class Classification of Upper Limb Movements With Filter Bank Task-Related Component Analysis.** *IEEE journal of biomedical and health informatics*
  Jia, H., Feng, F., Caiafa, C. F., Duan, F., Zhang, Y., Sun, Z., Sole-Casals, J.
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- **Structure invariance-driven collaborative contrastive network for EEG decoding** *BIOMEDICAL SIGNAL PROCESSING AND CONTROL*
  Liang, S., Li, Z., Hang, W., Zhang, Y., Lei, B., Qin, J., Zhang, Y., Choi, K.
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- **Recent Approaches to Design and Analysis of Electrical Impedance Systems for Single Cells Using Machine Learning.** *Sensors (Basel, Switzerland)*
  Ferguson, C., Zhang, Y., Palego, C., Cheng, X.
  2023; 23 (13)
- **Individualized fMRI connectivity defines signatures of antidepressant and placebo responses in major depression.** *Molecular psychiatry*
  Zhao, K., Xie, H., Fonzo, G. A., Tong, X., Carlisle, N., Chidharom, M., Etkin, A., Zhang, Y.
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- **Individual Deviations from Normative Electroencephalographic Connectivity Predict Antidepressant Response.** *medRxiv : the preprint server for health sciences*
  Tong, X., Xie, H., Wu, W., Keller, C., Fonzo, G., Chidharom, M., Carlisle, N., Etkin, A., Zhang, Y.
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- **A generalizable functional connectivity signature characterizes brain dysfunction and links to rTMS treatment response in cocaine use disorder.** *medRxiv : the preprint server for health sciences*
  Zhao, K., Fonzo, G. A., Xie, H., Oathes, D. J., Keller, C. J., Carlisle, N., Etkin, A., Garza-Villarreal, E. A., Zhang, Y.
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- **Less Is More: Brain Functional Connectivity Empowered Generalizable Intention Classification With Task-Relevant Channel Selection.** *IEEE transactions on neural systems and rehabilitation engineering : a publication of the IEEE Engineering in Medicine and Biology Society*
  Lou, H., Ye, Z., Yao, L., Zhang, Y.
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- **Privacy-Preserving Multi-Source Domain Adaptation for Medical Data.** *IEEE journal of biomedical and health informatics*
  Han, T., Gong, X., Feng, F., Zhang, J., Sun, Z., Zhang, Y.

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- **Editorial: Deep learning in neuroimaging-based neurological disease analysis.** *Frontiers in neuroimaging*
  Li, X., Zhang, Y., Zhao, Q.
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- **Single-Cell Classification Based on Population Nucleus Size Combining Microwave Impedance Spectroscopy and Machine Learning.** *Sensors (Basel, Switzerland)*
  Ferguson, C. A., Hwang, J. C., Zhang, Y., Cheng, X.
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- **Machine learning-based identification of a psychotherapy-predictive electroencephalographic signature in PTSD** *Nature Mental Health*
  Zhang, Y., Naparstek, S., Gordon, J., Watts, M., Shpigel, E., El-Said, D., Badami, F. S., Eisenberg, M. L., Toll, R. T., Gage, A., Goodkind, M. S., Etkin, A., Wu, et al
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- **NORMATIVE MODELING VIA CONDITIONAL VARIATIONAL AUTOENCODER AND ADVERSARIAL LEARNING TO IDENTIFY BRAIN DYSFUNCTION IN ALZHEIMER'S DISEASE**
  Wang, X., Zhou, R., Zhao, K., Leow, A., Zhang, Y., He, L., IEEE
  IEEE.2023

- **Electrophysiological Brain Source Imaging via Combinatorial Search with Provable Optimality**
  Wan, G., Jiao, M., Ju, X., Zhang, Y., Schweitzer, H., Liu, F.
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  ASSOC ADVANCEMENT ARTIFICIAL INTELLIGENCE.2023: 12491-12499

- **Attentive Deep Canonical Correlation Analysis for Diagnosing Alzheimer's Disease Using Multimodal Imaging Genetics**
  Zhou, R., Zhou, H., Chen, B. Y., Shen, L., Zhang, Y., He, L.
  edited by Greenspan, H., Madabhushi, A., Mousavi, P., Salcudean, S., Duncan, J., Syeda-Mahmood, T., Taylor, R.
  SPRINGER INTERNATIONAL PUBLISHING AG.2023: 681-691

- **Cerebral cortex layer segmentation using diffusion magnetic resonance imaging in vivo with applications to laminar connections and working memory analysis.** *Human brain mapping*
  Zhang, J., Sun, Z., Duan, F., Shi, L., Zhang, Y., Solé-Casals, J., Caiafa, C. F.
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- **A Novel Method for Constructing EEG Large-Scale Cortical Dynamical Functional Network Connectivity (dFNC): WTCS.** *IEEE transactions on cybernetics*
  Yi, C., Yao, R., Song, L., Jiang, L., Si, Y., Li, P., Li, F., Yao, D., Zhang, Y., Xu, P.
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- **Improving pre-movement pattern detection with filter bank selection.** *Journal of neural engineering*
  Jia, H., Sun, Z., Duan, F., Zhang, Y., Caiafa, C. F., Solé-Casals, J.
  2022; 19 (6)

- **Modern views of machine learning for precision psychiatry.** *Patterns (New York, N.Y.)*
  Chen, Z. S., Kulkarni, P. P., Galatzer-Levy, I. R., Bigio, B., Nasca, C., Zhang, Y.
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- **An efficient CNN-LSTM network with spectral normalization and label smoothing technologies for SSVEP frequency recognition.** *Journal of neural engineering*
  Pan, Y., Chen, J., Zhang, Y., Zhang, Y.
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- **Transdiagnostic connectome signatures from resting-state fMRI predict individual-level intellectual capacity.** *Translational psychiatry*
  Tong, X., Xie, H., Carlisle, N., Fonzo, G. A., Oathes, D. J., Jiang, J., Zhang, Y.
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- **Sparse Interpretation of Graph Convolutional Networks for Multi-Modal Diagnosis of Alzheimer's Disease.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
  Zhou, H., Zhang, Y., Chen, B. Y., Shen, L., He, L.

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- **Motor Imagery Decoding in the Presence of Distraction Using Graph Sequence Neural Networks.** *IEEE transactions on neural systems and rehabilitation engineering : a publication of the IEEE Engineering in Medicine and Biology Society*
  Cai, S., Li, H., Wu, Q., Liu, J., Zhang, Y.
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- **A dynamic graph convolutional neural network framework reveals new insights into connectome dysfunctions in ADHD.** *NeuroImage*
  Zhao, K., Duka, B., Xie, H., Oathes, D. J., Calhoun, V., Zhang, Y.
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- **Deep EEG feature learning via stacking common spatial pattern and support matrix machine** *BIOMEDICAL SIGNAL PROCESSING AND CONTROL*
  Liang, S., Hang, W., Yin, M., Shen, H., Wang, Q., Qin, J., Choi, K., Zhang, Y.
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- **INTERPRETABLE GRAPH CONVOLUTIONAL NETWORK OF MULTI-MODALITY BRAIN IMAGING FOR ALZHEIMER'S DISEASE DIAGNOSIS**
  Zhou, H., He, L., Zhang, Y., Shen, L., Chen, B., IEEE
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- **Contrastive Functional Connectivity Graph Learning for Population-based fMRI Classification**
  Wang, X., Yao, L., Rekik, I., Zhang, Y.
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- **Side-Aware Meta-Learning for Cross-Dataset Listener Diagnosis With Subjective Tinnitus** *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING*
  Liu, Z., Li, Y., Yao, L., Lucas, M., Monaghan, J. J. M., Zhang, Y.
  2022; 30: 2352-2361

- **Decoding SSVEP patterns from EEG via multivariate variational mode decomposition-informed canonical correlation analysis** *BIOMEDICAL SIGNAL PROCESSING AND CONTROL*
  Chang, L., Wang, R., Zhang, Y.
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- **Decoding Premovement Patterns with Task-Related Component Analysis** *COGNITIVE COMPUTATION*
  Duan, F., Jia, H., Sun, Z., Zhang, K., Dai, Y., Zhang, Y.
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- **A Fast Approach to Removing Muscle Artifacts for EEG with Signal Serialization Based Ensemble Empirical Mode Decomposition.** *Entropy (Basel, Switzerland)*
  Dai, Y., Duan, F., Feng, F., Sun, Z., Zhang, Y., Caiafa, C. F., Marti-Puig, P., Solé-Casals, J.
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- **Filter Bank-Driven Multivariate Synchronization Index for Training-Free SSVEP BCI.** *IEEE transactions on neural systems and rehabilitation engineering : a publication of the IEEE Engineering in Medicine and Biology Society*
  Qin, K., Wang, R., Zhang, Y.
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- **Momentum contrastive learning for few-shot COVID-19 diagnosis from chest CT images.** *Pattern recognition*
  Chen, X., Yao, L., Zhou, T., Dong, J., Zhang, Y.
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- **Multiview Feature Learning With Multiatlas-Based Functional Connectivity Networks for MCI Diagnosis.** *IEEE transactions on cybernetics*
  Zhang, Y., Zhang, H., Adeli, E., Chen, X., Liu, M., Shen, D.
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- **Multi-View Multi-Scale Optimization of Feature Representation for EEG Classification Improvement.** *IEEE transactions on neural systems and rehabilitation engineering : a publication of the IEEE Engineering in Medicine and Biology Society*
  Jiao, Y., Zhou, T., Yao, L., Zhou, G., Wang, X., Zhang, Y.
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- **A survey on deep learning-based non-invasive brain signals: recent advances and new frontiers.** *Journal of neural engineering*
  Zhang, X., Yao, L., Wang, X., Monaghan, J. J., Mcalpine, D., Zhang, Y.
  2020
- **Adversarial Representation Learning for Robust Patient-Independent Epileptic Seizure Detection** *IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS*
  Zhang, X., Yao, L., Dong, M., Liu, Z., Zhang, Y., Li, Y.
  2020; 24 (10): 2852–59
- **EEG classification using sparse Bayesian extreme learning machine for brain-computer interface** *NEURAL COMPUTING & APPLICATIONS*
  Jin, Z., Zhou, G., Gao, D., Zhang, Y.
  2020; 32 (11): 6601–9
- **Verbal Memory Abilities and EEG Resting State Connectivity Predict Therapy Outcome in Veterans With PTSD**
  Naparstek, S., Narayan, M., Maron-Katz, A., Zhang, Y., Etkin, A.
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- **An electroencephalographic signature predicts antidepressant response in major depression.** *Nature biotechnology*
  Wu, W., Zhang, Y., Jiang, J., Lucas, M. V., Fonzo, G. A., Rolle, C. E., Cooper, C., Chin-Fatt, C., Krepel, N., Cornelssen, C. A., Wright, R., Toll, R. T., Trivedi, et al
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  Toll, R. T., Wu, W., Naparstek, S., Zhang, Y., Narayan, M., Patenaude, B., De Los Angeles, C., Sarhadi, K., Anicetti, N., Longwell, P., Shpigel, E., Wright, R., Newman, et al
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- **An ERP-based BCI with peripheral stimuli: validation with ALS patients.** *Cognitive neurodynamics*
  Miao, Y. n., Yin, E. n., Allison, B. Z., Zhang, Y. n., Chen, Y. n., Dong, Y. n., Wang, X. n., Hu, D. n., Chchocki, A. n., Jin, J. n.
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  Zhang, Y., Wu, W., Toll, R. T., Naparstek, S., Maron-katz, A., Watts, M., Gorddodn, J., Jeeong, J., Astolfi, L., Shpigel, E., Longwell, P., Sarhadi, k., El-Said, et al
  2020
- **A toolbox for brain network construction and classification (BrainNetClass).** *Human brain mapping*
  Zhou, Z. n., Chen, X. n., Zhang, Y. n., Hu, D. n., Qiao, L. n., Yu, R. n., Yap, P. T., Pan, G. n., Zhang, H. n., Shen, D. n.
  2020
- **A Novel EEMD-CCA Approach to Removing Muscle Artifacts for Pervasive EEG** *IEEE SENSORS JOURNAL*
  Chen, X., Chen, Q., Zhang, Y., Wang, Z.
  2019; 19 (19): 8420–31
- **Temporally Constrained Sparse Group Spatial Patterns for Motor Imagery BCI** *IEEE TRANSACTIONS ON CYBERNETICS*
  Zhang, Y., Nam, C. S., Zhou, G., Jin, J., Wang, X., Cichocki, A.
  2019; 49 (9): 3322–32
- **Regularized Group Sparse Discriminant Analysis for P300-Based Brain-Computer Interface** *INTERNATIONAL JOURNAL OF NEURAL SYSTEMS*
  Wu, Q., Zhang, Y., Liu, J., Sun, J., Cichocki, A., Gao, F.
  2019; 29 (6)
- **Strength and similarity guided group-level brain functional network construction for MCI diagnosis** *PATTERN RECOGNITION*
  Zhang, Y., Zhang, H., Chen, X., Liu, M., Zhu, X., Lee, S., Shen, D.
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- **Strength and Similarity Guided Group-level Brain Functional Network Construction for MCI Diagnosis.** *Pattern recognition*
  Zhang, Y., Zhang, H., Chen, X., Liu, M., Zhu, X., Lee, S. W., Shen, D.

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- **Sparse Group Representation Model for Motor Imagery EEG Classification** *IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS*
  Jiao, Y., Zhang, Y., Chen, X., Yin, E., Jin, J., Wang, X., Cichocki, A.
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  Cheng, J., Jin, J., Daly, I., Zhang, Y., Wang, B., Wang, X., Cichocki, A.
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  Wu, Q., Zhang, Y., Liu, J., Sun, J., Cichocki, A., Gao, F.
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