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Xin Di (邸新), PhD

Research Assistant Professor, Department of Biomedical Engineering

New Jersey Institute of Technology, Newark, NJ, USA

✉ xin.di@njit.edu | 🌐 www.dixin.info | ✓ Google Scholar: [wDjD46gAAAAJ](#)

ACADEMIC APPOINTMENT

- Research Assistant Professor, Department of Biomedical Engineering, New Jersey Institute of Technology, Newark, NJ, USA (2012 – present)
- Associate Professor (Protocol Appointment), Department of Biomedical Engineering, University of Electronic Science and Technology of China, Chengdu, China (2019 – 2020)
- Postdoctoral Researcher, Department of Radiology, University of Medicine and Dentistry of New Jersey, Newark, NJ, USA (2011 – 2012)

EDUCATION

- Ph.D. in Psychology, Sun Yat-Sen University, Guangzhou, China, 2010
- M.Sc. in Psychology, Sun Yat-Sen University, Guangzhou, China, 2006
- B.Eng. in Electronic Engineering, Civil Aviation University of China, Tianjin, China, 2004

RESEARCH FUNDING

- NJDOH CAUT25BRP005, PI: Xin Di | 2024 - 2026
Exploring eye-movement patterns and brain activity in autism spectrum disorder through deep learning-based eye-tracking with functional MRI
Total cost: \$200,000

Completed Projects

- NIH R15MH125332, PI: Xin Di | 2021 - 2025
Functional brain developments during movie watching and resting-state in autism spectrum disorder
Total cost: \$300,000
- NJ Alliance for Clinical and Translational Science (NJ ACTS), Co-PI: Xin Di | 2019 - 2020
Towards development of stable multimodal neuroimaging based markers of AD progression
Total cost: \$20,000
- NJDOH CAUT16APL019, PI: Xin Di | 2016 - 2018
Multimodal neuroimaging study of sex differences in children with autism spectrum disorder
Total cost: \$400,000

AWARDS

- Publons Top Reviewers for Neuroscience & Behavior (Top 1%), 2018
- Publons Top Reviewers for Neuroscience (Top 1%), 2017

- Publons Sentinels of Science Awards (2nd in neuroscience), 2016
- Travel stipend, ISMRM Annual Meeting, Toronto (2008); Berlin (2007)

PROFESSIONAL ACTIVITIES

Symposium and Conference Organization

- Organizer, *Relationship between Brain Energy Consumption and Brain Organizations*, OHBM, Brisbane, 2025

Scientific Committees

- Chair, Outreach Council, *Molecular Connectivity Working Group*, 2022 – present
 - Organizer, *Molecular Connectivity Online Series (MCOS)*
- Organizing Committee, *Neurochat Online Conference*, 2020 – 2021

Editorial Boards

- Associate Editor, *Frontiers Brain Imaging Methods*, 2020 – present
- Editorial Board Member, *BMC Neuroscience*, 2020 – present
- Review Editor, various Frontiers sections, 2014 – present

Reviewer

- *Ad hoc journal reviewer* for 40+ journals, including Nature Communications, Cerebral Cortex, and Imaging Neuroscience (full list available on request)
- *Grant reviewer*, NIH CPDD Study Section (June & Oct 2024); Ontario Mental Health Foundation (2013)
- *Conference abstract reviewer*, OHBM (2013–2015); Resting State / Brain Connectivity (2018)

PUBLICATIONS (Google Scholar h-index: 35)

Working Papers

3. **Di X**, Hanna GB, Biswal BB (2025). Timing Is Everything: Temporal Dynamics of BOLD Responses to Naturalistic Features in Movie Watching. bioRxiv: 10.1101/2025.11.07.687226
2. Chen DY, **Di X**, Karunakaran KD, Sun H, Pal S, Biswal BB (2024). Delayed cerebrovascular reactivity in individuals with spinal cord injury in the right inferior parietal lobe: a breath-hold functional near-infrared spectroscopy study. medRxiv: 10.1101/2024.06.03.24307819
1. Chen DY, **Di X**, Amaya N, Sun H, Pal S, Biswal BB (2024). Brain activation during the N-back working memory task in individuals with spinal cord injury: a functional near-infrared spectroscopy study. bioRxiv:10.1101/2024.02.09.579655

Reviews and Commentaries

5. **Di X**, Xu T, Miao X (2026). Future perspectives of functional connectivity: Advances in data acquisition and analysis. In *Functional Connectivity of the Human Brain* (pp. 281-309). Academic Press.

4. Severino M, et al. (2025). Molecular connectivity studies in neurotransmission: a scoping review. *Imaging Neuroscience*, 3: imag_a_00530.
3. **Di X**, Zhang L, Zhang Z, Biswal BB (2024). Opportunities and Challenges in Connectivity Analysis for Task-Based fMRI. *Phys Life Rev* 51:13-17.
2. Hu Z, **Di X** and Yang Z (2023). Editorial: Shared responses and individual differences in the human brain during naturalistic stimulations. *Front Hum Neurosci* 17:1201728.
1. Qian C, **Di X** (2011). Phase or amplitude? The relationship between ongoing and evoked neural activity. *J Neurosci* 31(29):10425-10426.

Research Articles

68. **Di X**, Biswal BB, and Alzheimer's Disease Neuroimaging Initiative (accepted). Comparing Intra- and Inter-individual Correlational Brain Connectivity from Functional and Structural Neuroimaging Data. *Brain Struct Funct* 230:113.
67. **Di X**, Pratik Jain, Bharat B Biswal (accepted). Effects of Tasks on Functional Brain Connectivity Derived from Inter-Individual Correlations: Insights from Regional Homogeneity of Functional MRI Data. *Brain Connect* 15(6):207–216.
66. Galli A, Inglese M, Presotto L, Malito R, *Di X*, Toschi N, Pilotto A, Padovani A, Tassorelli C, Perani D, Sala A, Caminiti SP (2025). Glucose metabolism in hyper-connected regions predicts neurodegeneration and speed of conversion in Alzheimer's disease. *Eur J Nucl Med Mol Imaging* 52:4639–4651.
65. Jain P, Michael AM, Wang P, **Di X**, Biswal BB (accepted). WhiFuN: A Toolbox to Map the White Matter Functional Networks of the Human Brain. *Imaging Neuroscience* 3:IMAG.a.3.
64. Sohn W, **Di X**, Liang Z, Zhang Z, Biswal BB (2024). Explorations of using a convolutional neural network to understand brain activations during movie watching. *Psychoradiology* 4:kkae021.
63. Mittal P, Sao AK, Biswal BB, **Di X**, Dileep AD (2024). Network-wise analysis of movie-specific information in dynamic functional connectivity using COBE, *Cereb Cortex* 34(4):bhae170.
62. Chen DY, **Di X**, Yu X, Biswal BB (2024). The Significance and Limited Influence of Cerebrovascular Reactivity on Age and Sex Effects in Task- and Resting-State Brain Activity. *Cereb Cortex* 34(2): bhad448.
61. Chen DY, **Di X**, Biswal BB (2024). Neurovascular reactivity increases across development in the visual and frontal pole networks as revealed by a breath-holding task: a longitudinal fMRI study. *Hum Brain Mapp* 45(1):e26515.
60. Zhang H, Meng C, **Di X**, Wu X, Biswal BB (2023). Static and Dynamic Functional Connectome Reveals Reconfiguration Profiles of Whole Brain Network across Cognitive States. *Netw Neurosci* 7 (3):1034–1050.
59. **Di X**, Xu T, Uddin LQ Biswal BB (2023). Individual differences in time-varying and stationary brain connectivity during movie watching from childhood to early adulthood: Effects of age, sex, and behavioral associations. *Dev Cogn Neurosci* 63:101280.
58. Zhang H, **Di X**, Rypma B, Yang H, Meng C, Biswal BB (2023). Interaction between memory load and experimental design on brain connectivity and network topology. *Neurosci Bull* 39:631–644.
57. **Di X**, Biswal BB (2023). A functional MRI preprocessing and quality control protocol based on statistical parametric mapping (SPM) and MATLAB. *Front Neuroimaging* 1:1070151.

56. **Di X**, Zhang Z, Xu T, Biswal BB (2022): Dynamic and stationary brain connectivity during movie watching as revealed by functional MRI. *Brain Struct Funct* doi:10.1007/s00429-022-02522-w
55. Yang H, Zhang H, Meng C, Wohlschläger A, Brandl F, **Di X**, Tian L, Biswal BB (2022): Frequency-specific coactivation patterns in resting-state and their alterations in schizophrenia: an fMRI study. *Hum Brain Mapping* 43(12):3792-3808.
54. **Di X**, Woelfer M, Kuhn SB, Zhang Z, Biswal BB (2022). Estimations of the weather effects on brain functions using functional MRI - a cautionary tale. *Hum Brain Mapping* 43(11):3346-3356.
53. **Di X**, Biswal BB (2022). Principal component analysis reveals multiple consistent responses to naturalistic stimuli in children and adults. *Hum Brain Mapp* 43(11):3332-3345.
52. Li M, Danyeli LV, Colic L, Wagner G, Smesny S, Chand T, **Di X**, Biswal BB, Kaufmann J, Reichenbach JR, Speck O, Walter M, Sen ZD (2022). The differential association between local neurotransmitter levels and whole-brain resting-state functional connectivity in two distinct cingulate cortex subregions. *Hum Brain Mapp* 43(9):2833-2844.
51. Hafiz R, Gandhi TK, Mishra S, Prasad A, Mahajan V, **Di X**, Natelson BH, Biswal BB (2022). Higher Limbic and Basal Ganglia volumes in surviving COVID-negative patients and the relations to fatigue. *Neuroimage:Reports* 2(2):100095.
50. Li L, **Di X**, Zhang H, Huang G, Zhang L; Liang Z, Zhang Z (2022). Characterization of whole-brain task-modulated functional connectivity in response to nociceptive pain: A multisensory comparison study. *Hum Brain Mapp* 43(3):1061-1075.
49. Wu Z, Cao M, **Di X**, Wu K, Gao Y, Li X (2022). Regional Topological Aberrances of White Matter- and Gray Matter-based Functional Networks for Attention Processing may Foster Traumatic Brain Injury-Related Attention Deficits in Adults. *Brain Sci* 12(1), 16.
48. Yang H, Zhang H, **Di X**, Wang S, Meng C, Tian L, Biswal BB (2021). Reproducible Coactivation Patterns of Functional Brain Networks Reveal the Aberrant Dynamic State Transition in Schizophrenia. *Neuroimage* 237:118193.
47. **Di X**, Zhang Z, Biswal BB (2020). Understanding psychophysiological interaction and its relations to beta series correlation. *Brain Imaging Behav*, doi:10.1007/s11682-020-00304-8
46. Woelfer M, Li M, Colic L, Liebe T, **Di X**, Biswal B, Murrough J, Lessmann V, Brigadski T, Walter M (2020). Ketamine-induced changes in plasma brain-derived neurotrophic factor (BDNF) levels are associated with the resting-state functional connectivity of the prefrontal cortex. *World J Biol Psychia* 21(9):696-710.
45. Klugah-Brown B, **Di X**, Zweerings J, Mathiak K, Becker B, Biswal B (2020): Common and separable neural alterations in substance use disorders: evidence from coordinate-based meta-analyses of functional neuroimaging studies in human. *Hum Brain Mapp* 41(16):4459-4477.
44. **Di X**, Biswal BB (2020). Intersubject consistent dynamic connectivity during natural vision revealed by functional MRI. *Neuroimage* 216:1166982.
43. Yang H, **Di X**, Gong Q, Sweeney J, Biswal BB (2020). Investigating inhibition deficit in schizophrenia using task-modulated brain networks. *Brain Struct Funct* 225:1601–1613.
42. Botvinik-Nezer et al., (2020): Variability in the analysis of a single neuroimaging dataset by many teams. *Nature* 582(7810):84-88.
41. **Di X**, Zhang H, Biswal BB (2020). Anterior cingulate cortex differently modulates fronto-parietal functional connectivity between resting-state and working memory tasks. *Human Brain Mapping*. *Hum Brain Mapp* 41:1797–1805.

40. **Di X**, Woelfer M, Amend M, Wehrl H, Ionescu TM, Pichler BJ, Biswal BB, and Alzheimer's Disease Neuroimaging Initiative (2019). Interregional causal influences of brain metabolic activity reveal the spread of aging effects during normal aging. *Hum Brain Mapp* 40(16):4657-4668.
39. Amend M, Ionescu TM, **Di X**, Pichler BJ, Biswal BB, Wehrl HF (2019). Functional resting-state brain connectivity is accompanied by dynamic correlations of application-dependent [18F]FDG PET-tracer fluctuations. *Neuroimage* 196:161-172.
38. Fu Z, Tu Y, **Di X**, Du Y, Sui J, Biswal BB, Zhang Z, de Lacy N, Calhoun V (2019). Transient Increased Thalamic-Sensory Connectivity and Decreased Whole-Brain Dynamism in Autism. *Neuroimage* 190:191-204.
37. **Di X**, Biswal BB (2019). Toward Task Connectomics: Examining Whole-Brain Task Modulated Connectivity in Different Task Domains. *Cereb Cortex* 29(4):1572-1583.
36. Fu Z, Tu Y, **Di X**, Du Y, Pearlson GD, Turner JA, Biswal BB, Zhang Z, Calhoun VD (2018). Characterizing Dynamic Amplitude of Low-Frequency Fluctuation and Its Relationship with Dynamic Functional Connectivity: An Application to Schizophrenia. *Neuroimage* 180:619-31.
35. **Di X**, Azeez A, Li X, Haque E, Biswal BB (2018). Disrupted focal white matter integrity in autism spectrum disorder: a voxel-based meta-analysis of diffusion tensor imaging studies. *Prog Neuropsychopharmacol Biol Psychiatry* 82:242-248.
34. Fu Z, Tu Y, **Di X**, Biswal BB, Calhoun VD, Zhang Z (2017). Associations between Functional Connectivity Dynamics and BOLD Dynamics are Heterogeneous across Brain Networks. *Front Hum Neurosci* 11:593.
33. **Di X**, Gohel S, Thielcke A, Wehrl HF, Biswal BB, and Alzheimer's Disease Neuroimaging Initiative (2017). Do all roads lead to Rome? A comparison of brain networks derived from inter-subject volumetric and metabolic covariance and moment-to-moment hemodynamic correlations in old individuals. *Brain Struct Funct* 222(8):3833–3845.
32. **Di X**, Biswal BB (2017). Psychophysiological Interactions in a Visual Checkerboard Task: Reproducibility, Reliability, and the Effects of Deconvolution. *Front Neurosci* 11:573.
31. Jin H, Wang P, Fang Z, **Di X**, Ye Z, Xu G, Lin H, Cheng Y, Li Y, Xu Y, Rao H (2017). Effects of badminton expertise on representational momentum: A combination of cross-sectional and longitudinal studies. *Front Psychol* 8:1526.
30. **Di X**, Reynolds RC, Biswal BB (2017). Imperfect (de)convolution may introduce spurious psychophysiological interactions and how to avoid it. *Hum Brain Mapp* 38(4), 1723–1740.
29. **Di X**, Huang J, Biswal BB (2017). Task-modulated brain connectivity of the amygdala: a meta-analysis of psychophysiological interactions. *Brain Struct Funct* 222(1):619-634.
28. Xu H, Wang P, Ye Z, **Di X**, Xu G, Mo L, Lin H, Rao H and Jin H (2016) The Role of Medial Frontal Cortex in Action Anticipation in Professional Badminton Players. *Front Psychol*. 7:1817.
27. Ray S, **Di X**, Biswal BB (2016). Effective Connectivity Within the Mesocorticolimbic System During Resting-State in Cocaine Users. *Front Hum Neurosci*. 10:563.
26. Yuan R, **Di X**, Taylor PA, Gohel S, Tsai YH, Biswal BB (2016). Functional topography of the thalamocortical system in human. *Brain Struct Funct* 221(4):1971-1984.
25. Zhang X, **Di X**, Lei H, Yang J, Xiao J, Wang X, Yao S, Rao H (2016): Imbalanced Spontaneous Brain Activity in Orbitofrontal-Insular Circuits in Individuals with Cognitive Vulnerability to Depression. *J Affect Disord* 198:56-63.

24. **Di X**, Biswal BB (2016). Similarly expanded bilateral temporal lobe volumes in female and male children with autism spectrum disorder. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* 1(2):178-185.
23. Hu C, **Di X**, Eickhoff SB, Zhang M, Peng K, Guo H, Sui J (2016). Distinct and common aspects of physical and psychological self-representation in the brain: A meta-analysis of self-bias in facial and self-referential judgements. *Neuroscience & Biobehavioral Reviews* 61:197–207.
22. **Di X**, Biswal BB (2015). Characterizations of resting-state modulatory interactions in human brain. *J Neurophysiol* 114(5), 2785-96.
21. **Di X**, Fu Z, Chan SC, Hung YS, Biswal BB, Zhang Z (2015). Task-related Functional Connectivity Dynamics in a Block-designed Visual Experiment. *Front Hum. Neurosci* 9:543.
20. **Di X**, Biswal BB (2015). Dynamic Brain Functional Connectivity Modulated by Resting-State Networks. *Brain Struct Funct* 220(1):37-46.
19. **Di X**, Kim E, Chen P, Biswal BB (2014). Lateralized Resting-state Functional Connectivity in the Task-positive and Task-negative Networks. *Brain Connect* 4(9): 641-648.
18. Lei H, Zhang X, **Di X**, Rao H, Ming Q, Zhang J, Guo X, Jiang Y, Gao Y, Yi J, Zhu X, Yao S (2014). A Functional Polymorphism of the MAOA Gene Modulates Spontaneous Brain Activity in Pons. *Biomed Res Int* 2014:243280.
17. Fu Z, Chan SC, **Di X**, Biswal B, Zhang Z (2014). Adaptive Covariance Estimation of Non-stationary Processes and its Application to Infer Dynamic Connectivity from fMRI. *IEEE Trans Biomed Circuits Syst* 8(2):228–39.
16. **Di X**, Biswal BB (2014). Modulatory Interactions between the Default Mode Network and Task Positive Networks in Resting-State. *PeerJ* 2:e367.
15. **Di X**, Biswal BB (2014). Identifying the Default Mode Network Structure Using Dynamic Causal Modeling on Resting-state Functional Magnetic Resonance Imaging. *Neuroimage* 86:53–9.
14. **Di X**, Rypma B, Biswal BB (2014). Correspondence of Executive Function Related Functional and Anatomical Alterations in Aging Brain. *Prog Neuropsychopharmacol Biol Psychiatry* 48(3):41–50.
13. Yuan R, **Di X**, Kim EH, Barik S, Rypma B, Biswal BB (2013). Regional Homogeneity of Resting-state fMRI Contributes to Both Neurovascular and Task Activation Variations. *Magn Reson Imaging* 31(9):1492–1500.
12. **Di X**, Gohel S, Kim EH and Biswal BB (2013). Task vs. Rest - Different Network Configurations between the Coactivation and the Resting-State Brain Networks. *Front Hum Neurosci.* 7:493.
11. **Di X**, Biswal BB (2013). Modulatory interactions of resting-state brain functional connectivity. *PLoS One* 8(8): e71163.
10. **Di X**, Kim EH, Huang C, Tsai S, Lin C and Biswal BB (2013). The influence of the amplitude of low-frequency fluctuations on resting-state functional connectivity. *Front Hum Neurosci.* 7:118.
9. Huang J, Wang Y, Jin Z, **Di X**, Yang T, Gur RC, Gur RE, Shum DH, Cheung EF, Chan RC (2013). Happy facial expression processing with different social interaction cues: An fMRI study of individuals with schizotypal personality traits. *Prog Neuropsychopharmacol Biol Psychiatry* 44(1):108–17.

8. **Di X**, Kannurpatti SS, Rypma B, Biswal BB (2013). Calibrating BOLD fMRI activations with neuro-vascular and anatomical constraints. *Cereb Cortex* 23 (2):255-63.
7. **Di X**, Biswal BB, Alzheimer's Disease Neuroimaging Initiative (2012). Metabolic Brain Covariant Networks as Revealed by FDG-PET with reference to resting-state fMRI networks. *Brain Connect* 2(5):275-83.
6. **Di X**, Zhu S, Jin H, Wang P, Ye Z, Zhou K, Zhuo Y, Rao H (2012). Altered resting brain function and structure in professional badminton players. *Brain Connect* 2(4):225-33.
5. Taylor P, Gohel SR, **Di X**, Walter M, Biswal B (2012). Functional covariance networks: obtaining resting state networks from intersubject variability. *Brain Connect* 2(4):203-17.
4. Chan RC, **Di X**, McAlonan GM, Gong QY (2011). Brain Anatomical Abnormalities in High-Risk Individuals, First-Episode, and Chronic Schizophrenia: An Activation Likelihood Estimation Meta-analysis of Illness Progression. *Schizophr Bull* 37(1):177-88.
3. **Di X**, Chan RC, Gong QY (2009). White matter reduction in patients with schizophrenia as revealed by voxel-based morphometry: an activation likelihood estimation meta-analysis. *Prog Neuropsychopharmacol Biol Psychiatry* 33(8):1390-1394.
2. Chan RC, Huang J, **Di X** (2009). Dexterous movement complexity and cerebellar activation: a meta-analysis. *Brain Res Rev* 59(2):316-323.
1. Rao H, **Di X**, Chan RC, Ding Y, Ye B, Gao D (2008). A regulation role of the prefrontal cortex in the fist-edge-palm task: evidence from functional connectivity analysis. *Neuroimage* 41(4):1345-1351.

Publications in Chinese

3. Liu Y, Chen S, Fan F, **Di X**, Fan H, Feng C, Guo S, Gan Y, Li H, Lv X, Ren Z, Xu P, Yuan B, Zuo X, Hu C (2021): A standardized checklist on meta-analysis reporting in the open science era. *Scientia Sinica Vitae* doi:10.1360/SSV-2021-0009.
2. Hu C, **Di X**, Li J; Sui J, Peng K (2015). Meta-analysis of Neuroimaging Studies. *Advances in Psychological Science* 23(7): 1118-1129.
1. **Di X**, Rao H (2007). Progress in Functional Connectivity Analysis. *Progress in Biochemistry and Biophysics* 34(1), 5-12.

File Drawer (No plan for submission)

- Hafiz R, Gandhi TK, Misrhra S, Prasad A, Mahajan V, Natelson B, **Di X**, Biswal BB (2022). Assessing functional connectivity differences and work-related fatigue in surviving COVID-negative patients. *bioRxiv*:10.1101/2022.02.01.478677
- Di X**, Biswal BB (2016): Sex-dependent and sex-independent brain resting-state functional connectivity in children with autism spectrum disorder. *bioRxiv* doi: <http://dx.doi.org/10.1101/038026>

TEACHING AND MENTORSHIP

Undergraduate Courses

- BME 210: Processing Fundamentals for Biological Signals
2025 Fall, 2025 Spring, 2024 Fall
- BME 471: Principles of Medical Imaging
2023 Fall

Directed student learning

- Doctoral Advisory Committee Member. Donna Chen: "Investigating the neurovascular correlates of cognitive function in individuals with spinal cord injury using functional near-infrared spectroscopy", 2024.
- Doctoral Advisory Committee Member. Rakibul Hafiz: "Assessing structural and functional brain alterations and work-related fatigue in non-hypoxic and hypoxic COVID-19 survivors", 2022.
- Master's Thesis Committee Member. Berk Can Yilmaz: "Comparison of longitudinal changes in resting state functional magnetic resonance imaging between Alzheimer's and healthy controls", 2020.
- Doctoral Advisory Committee Member. Azeezat Azeez: "Developmental and sex modulated neurological alterations in autism spectrum disorder", 2019.
- Doctoral Advisory Committee Member. Keerthana Deepti Karunakaran: "A multimodal approach to investigate brain reorganization after spinal cord injury using functional magnetic resonance imaging and functional near-infrared spectroscopy", 2019.
- Master's Thesis Committee Member. Rakibul Hafiz: "Subject and group level changes and comparison in functional connectivity under low vs. high cognitively demanding naturalistic viewing conditions using fMRI", 2017.
- Master's Thesis Committee Member. Dhruvi Patel: "Effect of scan time on resting state parameters", 2013.
- Master's Thesis Committee Member. Hossein Ebrahimi Nezhad: "Differentiating schizophrenic patients from healthy control: application of machine learning to resting state fMRI", 2013.

INVITED TALKS & WORKSHOPS**Educational courses**

OHBM educational course: Molecular Imaging: a Hands-on Tutorial based on Open Access Datasets FDG-PET: Data Processing and Analysis Using SPM	Seoul, Korea June 2024
OHBM educational course: Making Quality Control Part of Your Analysis: Learning with the FMRI Open QC Project QC for resting-state and task fMRI in SPM	Montreal, Canada July 2023
Preconference workshop for 6 th biennial conference on resting-state and brain connectivity Single Subject and Group Analysis	Montreal, Canada September 2018
Preconference workshop for 4 th biennial conference on resting-state and brain connectivity Physiophysiological interaction (PPI), Granger causality analysis, and dynamic causal modeling (DCM) for resting-state fMRI	Boston, MA, USA September 2014
OHBM educational course: resting-state brain networks Case Study: Single Subject and Group Analysis	Seattle, WA, USA June 2013
OHBM educational course: resting-state brain networks	Beijing, China

Case Study: Single Subject and Group Analysis

June 2012

Invited Talks

Molecular Connectivity Online Series

Online

Comparing Intra- and Inter-individual Correlational Brain
Connectivity from Functional and Structural Neuroimaging Data

March 2025

Psychoradiology Online Series

Online

Time-varying and stationary brain connectivity during movie
watching

January 2025

Symposium: What is brain connectivity?

Munich, Germany

Inter-individual estimations of functional connectivity

May 2024

Resting-State Brain Connectivity 2023

Dallas, TX, USA

Time-varying and stationary brain connectivity during movie
watching

September 2023

PET for brain connectivity: back to the future? Workshop

Glasgow, UK

Glucose metabolic covariance connectivity

May 2022

Neurochat 2020 Online Conference

Online

Estimations of the weather effects on brain functions using
functional MRI - a cautionary tale

April 2020

Department of Management, Jinan University

Guangzhou, China

Brain functional connectivity during task-states as revealed by
fMRI

January 2020

BrainHack Global NYC 2018

NYC, USA

Measuring task modulated connectivity from fMRI data using
psychophysiological interaction and beta series

May, 2018

Department of Biomedical Engineering, Shenzhen University

Shenzhen, China

Task modulated brain connectivity using fMRI: method
considerations and new findings

January 2018

Department of Biomedical Engineering, University of Electronic
Science and Technology of China

Chengdu, China

Task modulated brain connectivity using fMRI: method
considerations and new findings

January 2018

4th biennial conference on resting-state and brain connectivity

Boston, MA, USA

Modulatory interactions of resting-state functional connectivity

September 2014

NJIT Biomedical Engineering Seminars

Newark, USA

Modulatory interactions of resting-state brain functional
connectivity

September 2014

NJIT Biomedical Engineering Seminars

Newark, USA

Task vs. Rest - Different Network Configurations between the
Coactivation and the Resting-State Brain Networks

April 2013

Institute of Psychology, Chinese Academy of Sciences	Beijing, China
Neuropsychology and Applied Cognitive Neuroscience Lab	June 2012
The infrastructure of brain functions - from structure to physiology	
Center for Brain Health, UT Dallas	Dallas, TX, USA
NeuroPsychometric Research Lab	April 2012
The infrastructure of brain functions - from structure to physiology	

Conference Presentations

21. Yang H, **Di X**, Biswal BB. Aberrant whole-brain task-modulated connectivity in Schizophrenia under stop signal task. Poster presentation at the Sixth Biennial Conference on Resting State / Brain Connectivity, Montreal, Canada (2018).
20. **Di X**, Biswal BB. Assessing task related brain connectivity in a fast event-related designed stop signal task using psychophysiological interaction and beta series correlation. Poster presentation at the 4th New York Metropolitan Imaging Symposium, New York, USA (2017).
19. Azeez AK, **Di X**, Biswal BB. Biological Sex Modulations on Cortical Thickness in Autism Spectrum Disorder: An analysis of Autism Brain Imaging Data Exchange II. Poster presentation at the International Meeting for Autism Research (IMFAR), San Francisco, USA (2017).
18. **Di X**, Biswal BB. Task related brain networks derived from trial-by-trial variability of a slow event-related designed Flanker task. Poster presentation at the Fourth Biennial Conference on Resting State / Brain Connectivity, Boston, USA (2014).
17. **Di X**, Yuan R, Biswal BB. Modulatory interactions between the thalamus and visual cortex in resting-state are modulated by eye open/closed conditions. Poster presentation at the Fourth Biennial Conference on Resting State / Brain Connectivity, Boston, USA (2014).
16. Fu Z, **Di X**, Chan SC, Hung YS, Biswal BB, Zhang Z. Characterizing temporal variations of functional connectivity in resting-state. Poster presentation for Joint Annual Meeting ISMRM-ESMRMB, Milano, Italy (2014).
15. Fu Z, **Di X**, Chan SC, Hung YS, Biswal BB, Zhang Z (2013). Time-varying correlation coefficients estimation and its application to dynamic connectivity analysis of fMRI. Conf Proc IEEE Eng Med Biol Soc. 2013:2944-2947.
14. Zhang Z, Fu Z, Chan SC, Hung YS, Motta G, **Di X**, Biswal BB. Conference Paper: Adaptive window selection in estimating dynamic functional connectivity of resting-state fMRI. 9th International Conference on Information, Communications and Signal Processing (ICICS2013).
13. **Di X**, Biswal BB. Identifying the Default Mode Network Structure Using Dynamic Causal Modeling on Resting-state fMRI. Poster presentation at 19th Annual Meeting of the Organization for Human Brain Mapping, Seattle, USA (2013).
12. **Di X**, Biswal BB. The nonlinear intrinsic brain networks - modulations on resting-state functional connectivity by other regions. Poster presentation at 19th Annual Meeting of the Organization for Human Brain Mapping, Seattle, USA (2013).
11. **Di X**, Fu Z, Zhang Z, Chan SC, Biswal BB. Transient connectivity changes during a visual task - time-varying correlation estimation analysis. Poster presentation at 19th Annual Meeting of the Organization for Human Brain Mapping, Seattle, USA (2013).

10. Yuan R, **Di X**, Kim EH, Barik S, Rypma B, Biswal BB. Regional Homogeneity of Resting-state fMRI Contributes to Both Neurovascular and Task Activation Variations. Poster presentation at 19th Annual Meeting of the Organization for Human Brain Mapping, Seattle, USA (2013).
9. **Di X**, Kannurpatti SS, Rypma B, Biswal BB. Calibrating BOLD fMRI activations with neurovascular and anatomical constraints. Poster presentation at 18th Annual Meeting of the Organization for Human Brain Mapping, Beijing, China (2012).
8. Gohel S, **Di X**, Biswal BB. Trajectories of functional brain networks connectivity over life-span brain development. Poster presentation at 18th Annual Meeting of the Organization for Human Brain Mapping, Beijing, China (2012).
7. Taylor P, Gohel SR, **Di X**, Walter M, Biswal BB. Functional covariance networks: obtaining resting state networks from intersubject variability. Poster presentation at 18th Annual Meeting of the Organization for Human Brain Mapping, Beijing, China (2012).
6. Jin H, Wang P, **Di X**, Ye Z, Xu G, Mo L, Lin C, Rao H. Activation of Medial Prefrontal Cortex during Sport-related Anticipation: An fMRI Study. Poster presentation at 17th Annual Meeting of the Organization for Human Brain Mapping, Québec, Canada (2011).
5. Zhu S, **Di X**, Jin H, Wang P, Mo L, Zhou K, Zhuo Y, Rao H. Training shapes Cerebellum and parieto-frontal network in professional badminton players. Poster presentation at Annual Meeting of ISMRM, Montreal, Canada (2011).
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