

# Sina Mansour L. | Curriculum Vitae

Postdoctoral Research Fellow

Centre for Sleep and Cognition, National University of Singapore, Singapore

✉ [sina.mansour.lakouraj@gmail.com](mailto:sina.mansour.lakouraj@gmail.com) • 📄 [sina-mansour.github.io](https://sina-mansour.github.io)

For the most recent CV, you may check [sina-mansour.github.io/cv/](https://sina-mansour.github.io/cv/)

## 🎓 Education & Employment

### Postdoctoral Research Fellow

*Centre for Sleep and Cognition, National University of Singapore*

**2023–present**

*Singapore, Singapore*

### Honorary Research Fellow

*Department of Psychiatry, The University of Melbourne*

**2023–present**

*Melbourne, Australia*

### Postdoctoral Research Fellow

*Department of Psychiatry, The University of Melbourne*

**2022–2023**

*Melbourne, Australia*

### Ph.D., Dept. of Biomedical Engineering

*Melbourne School of Engineering, The University of Melbourne*

**2018–2022**

*Melbourne, Australia*

### Double degrees in electrical engineering and computer sciences

*Depts. of Electrical Engineering & Mathematical Sciences, Sharif University of Technology,*

**2011–2017**

*Tehran, Iran*

## 🌟 Awards & Honors

**2023:** Awarded the Runner-Up International Open Science Trainee Prize from [the Neuro](#).

**2022:** Awarded the Best Student Paper Prize from the IEEE Victorian Section.

**2021:** Awarded the best poster ECR award at Maths in the Brain 2021.

**2021:** Awarded the Open Science fellowship from the OHBM Open Science Special Interest Group.

**2021:** Awarded the IEEE Special Recognition Award from the IEEE Region 10 (Student Branch chair).

**2020:** Awarded a Student Engagement Grant (SEG) 2020 as chair of the IEEE student branch at the University of Melbourne to organize programming workshops tailored for undergraduate and graduate students.

**2019:** Best graphical abstract from SOBR symposium 2019

**2019:** Poster presentation excellence award in engineering, computational and systems neuroscience, SOBR symposium 2019

**2019:** Awarded a grant from the Graduate Students' Association (GSA) at The University of Melbourne to support the Programming for Neuroimaging Data Analysis (PNDA) workshop series.

**2018:** Melbourne Research Scholarship for postgraduate research

**2017:** Ranked 2<sup>nd</sup> among participants in Nationwide Graduate University Entrance Exam for Computer Sciences (for Masters Degree)

**2015:** Ranked 23<sup>rd</sup> in the IEEEExtreme 9.0 worldwide programming contest as a member of team CoDeFX (3<sup>rd</sup> in Iran)

## 🔍 Scholarly Work

For the complete list of publications, refer to my [Google Scholar profile](#).

## Intellectual Property and Software

**2024:** Yeo, T. B. T., **Mansour L., S.**, Zhou, J., Chen, C., Zalesky, A., & Di Biase, M. (2024). *Normative reference model and uses* (Patent application No. 10202401839Y). National University of Singapore & The University of Melbourne. Pending.

**2024:** **Mansour L., S.**, Bryant, A. G., Jeganathan, J., Kai, J., Kuehn, T., ..., & Arun, A. (2024). *Cerebro Brain Viewer* (Software). Zenodo. <https://doi.org/10.5281/zenodo.7885668>.

**2023:** **Mansour L., S.** (2023). *Connectome Spatial Smoothing* (Software). Zenodo. <https://doi.org/10.5281/zenodo.5746618>.

## Publications

**2024:** **Mansour L., S.**, Seguin, C., Winkler, A., Noble, S., & Zalesky, A.. (2024). Topological cluster statistic (TCS): Toward structural connectivity-guided fMRI cluster enhancement. *Network Neuroscience*. [https://doi.org/10.1162/netn\\_a\\_00375](https://doi.org/10.1162/netn_a_00375)

**2024:** Jeganathan, J., Koussis, N. C., Paton, B., **Mansour L., S.**, Zalesky, A., & Breakspear, M. (2024). Spurious correlations in surface-based functional brain imaging. *bioRxiv*, 2024.07.09.602799. <https://doi.org/10.1101/2024.07.09.602799>

**2024:** **Mansour L., S.**, Behjat, H., Van De Ville, D., Smith, R. E., Yeo, B. T., & Zalesky, A. (2024). Eigenmodes of the brain: revisiting connectomics and geometry. *bioRxiv*, 2024.04.16.589843. <https://doi.org/10.1101/2024.04.16.589843>

**2024:** Oldham, S., **Mansour L., S.**, & Ball, G. (2024). Development of thalamocortical connectivity during the third trimester. *bioRxiv*, 2024.04.29.591770. <https://doi.org/10.1101/2024.04.29.591770>

**2023:** **Mansour L., S.**, Di Biase, M. A., Smith, R. E., Zalesky, A., & Seguin, C. (2023). Connectomes for 40,000 UK Biobank participants: A multi-modal, multi-scale brain network resource. *NeuroImage*, 283, 120407. <https://doi.org/10.1016/j.neuroimage.2023.120407>

**2023:** Tanner, J., **Mansour L., S.**, Coletta, L., Gozzi, A., & Betzel, R. F. (2023). Functional connectivity modules in recurrent neural networks: function, origin and dynamics. *arXiv preprint*, arXiv:2310.20601. <https://doi.org/10.48550/arXiv.2310.20601>

**2023:** Dehestani, N., Vijayakumar, N., Ball, G., **Mansour L., S.**, Whittle, S., & Silk, T. J. (2023). “Puberty age gap”: new method of assessing pubertal timing and its association with mental health problems. *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-023-02316-4>

**2023:** Girard, G., Rafael-Patiño, J., Truffet, R., Aydogan, D. B., ..., **Mansour L., S.**, ... & Thiran, J. P. (2023). Tractography passes the test: Results from the diffusion-simulated connectivity (disco) challenge. *NeuroImage*, 277, 120231. <https://doi.org/10.1016/j.neuroimage.2023.120231>

**2023:** Liu, Y., Seguin, C., **Mansour L., S.**, Oldham, S., Betzel, R., Di Biase, M. A., & Zalesky, A. (2023). Parameter estimation for connectome generative models: Accuracy, reliability, and a fast parameter fitting method. *Neuroimage*, 270, 119962. <https://doi.org/10.1016/j.neuroimage.2023.119962>

**2023:** Seguin, C., Jedynak, M., David, O., **Mansour L., S.**, Sporns, O., & Zalesky, A.. (2023). Communication dynamics in the human connectome shape the cortex-wide propagation of direct electrical stimulation. *Neuron*. <https://doi.org/10.1016/j.neuron.2023.01.027>

**2023:** Nikolaidis, A., Mancini, M., Auer, T., Bottenhorn, K. L., ..., **Mansour L., S.**, ... & Zwiers, M. P. (2023). Proceedings of the OHBM Brainhack 2021. *Aperture Neuro*, 3, 1-20. <https://doi.org/10.52294/258801b4-a9a9-4d30->

**2023:** Smout, C., Holford, D. L., Garner, K., Martinez, P. A., Campbell, M., ..., **Mansour L., S.**, ... & Coelho, L. P. (2023). An open code pledge for the neuroscience community. *Aperture Neuro Proceedings of the OHBM Brainhack 2021*. <https://apertureneuropub.cloud68.co/articles/87/>

**2022:** Eisenmann, M., Reinke, A., Weru, V., Tizabi, M. D., ..., **Mansour L., S.**, ... & Finzel, R. (2022). Biomedical image analysis competitions: The state of current participation practice. *arXiv preprint*. <https://doi.org/10.48550/arXiv.2212.08568>

- 2022:** Seguin, C., **Mansour L., S.**, Sporns, O., Zalesky, A., & Calamante F. (2022). Network communication models narrow the gap between the modular organization of structural and functional brain networks. *NeuroImage*, 257, 119323. <https://doi.org/10.1016/j.neuroimage.2022.119323>
- 2022:** **Mansour L., S.**, Seguin, C., Smith, R. E., & Zalesky, A. (2021). Connectome spatial smoothing (CSS): Concepts, methods, and evaluation. *NeuroImage*, 250, 118930. <https://doi.org/10.1016/j.neuroimage.2022.118930>
- 2021:** Levitis, E., van Praag, C. D. G., Gau, R., Heunis, S., DuPre, E., Kiar, G., ..., **Mansour L., S.**, ... & Maumet, C. (2021). Centering inclusivity in the design of online conferences—An OHBM—Open Science perspective. *GigaScience*, 10(8), giab051. <https://doi.org/10.1093/gigascience/giab051>
- 2021:** Gau, R., Noble, S., Heuer, K., Bottenhorn, K. L., Bilgin, I. P., Yang, Y. F., ..., **Mansour L., S.**, ... & Marinazzo, D. (2021). Brainhack: Developing a culture of open, inclusive, community-driven neuroscience. *Neuron*, 109(11), 1769-1775. <https://doi.org/10.1016/j.neuron.2021.04.001>
- 2021:** Omidvarnia, A., Zalesky, A., **Mansour L., S.**, Van De Ville, D., Jackson, G. D., & Pedersen, M. (2021). Temporal complexity of fMRI is reproducible and correlates with higher order cognition. *NeuroImage*, 230, 117760. <https://doi.org/10.1016/j.neuroimage.2021.117760>
- 2021:** **Mansour L., S.**, Tian, Y., Yeo, B. T., Cropley, V., & Zalesky, A. (2021). High-resolution connectomic fingerprints: Mapping neural identity and behavior. *NeuroImage*, 229, 117695. <https://doi.org/10.1016/j.neuroimage.2020.117695>
- 2020:** Cropley, V. L., Tian, Y., Fernando, K., **Mansour L., S.**, Pantelis, C., Cocchi, L., & Zalesky, A. (2021). Brain-predicted age associates with psychopathology dimensions in youths. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 6(4), 410-419.
- 2020:** Rakesh, D., Fernando, K. B., & **Mansour L., S.** (2020). Functional dedifferentiation of the brain during healthy aging. *Journal of neurophysiology*, 123(4), 1279-1282. <https://doi.org/10.1152/jn.00039.2020>

## Conferences (peer-reviewed abstracts).....

**June 2024:** **"Human Brain Normative Modeling Using Eigenmodes"** Poster presentation at the Organization for Human Brain Mapping Annual Meeting (OHBM 2024), Seoul, South Korea.

**June 2024:** **"Creating and using representative Big Open datasets: global challenges and promises"** co-chaired [this symposium](#) as the Brainhack Chair of Open Science SIG at the Organization for Human Brain Mapping Annual Meeting (OHBM 2024), Seoul, South Korea.

**July 2023:** **"Topological Cluster Statistic (TCS): Linking tractography and brain activation to make anatomically-informed inference"** Featured talk at the symposium on "Inference on the Brain, advances and practices in brain activity inference" at the Organization for Human Brain Mapping Annual Meeting (OHBM 2023), Montreal, Canada.

**July 2023:** **"Connectomes for 40,000 UK Biobank participants: A multi-modal, multi-scale dataset for network neuroscience"** Poster presentation at the Organization for Human Brain Mapping Annual Meeting (OHBM 2023), Montreal, Canada.

**November 2022:** **"Topological Cluster Statistic (TCS): fMRI cluster enhancement using anatomically-guided inference"** Poster Presentation at the "Maths in the Brain 2022" Conference organized by the Turner Institute for Brain and Mental Health, Monash University.

**June 2022:** **"Spectral connectome analysis across modalities & resolutions"** Featured talk at the symposium on "Novel insights into brain organization via graph signal processing" at the Organization for Human Brain Mapping Annual Meeting (OHBM 2022), Glasgow, Scotland.

**June 2022:** **"Topological Cluster Statistic: Structural connectivity guided fMRI cluster enhancements"** Poster presentation at the Organization for Human Brain Mapping Annual Meeting (OHBM 2022), Glasgow, Scotland.

**November 2021: "Connectome-Based Smoothing (CBS) for structural connectomes"** Poster Presentation at the "Maths in the Brain" Conference organized by the Turner Institute for Brain and Mental Health & Monash Biomedical Imaging.

**June 2021: "Challenges and impacts of spatial smoothing on high-resolution structural connectomes"** Poster presentation at the Organization for Human Brain Mapping Annual Meeting (OHBM 2021), Online.

**August 2020: "Prediction-Identification Landscape for Brain Structure and Connectivity"** Poster presentation at the ISMRM & SMRT Virtual Conference & Exhibition, Online.

**July 2020: "High-resolution connectivity analyses"** Poster presentation at the 29th Annual Computational Neuroscience Meeting, Organization for Computational Neuroscience (OCNS), Online.

**November 2019: "Structural Connectome Fingerprinting"** Poster presentation and graphical abstract at the Students of Brain Research (SOBR) 2019 Student Symposium, The Melbourne Brain Centre, Parkville, Victoria, Australia.

**November 2019: "Prediction-Identification Landscape for Brain Structure and Connectivity"** Poster presentations at the BiomedLink 2019 annual conference, St. Vincent's Hospital Melbourne, Victoria, Australia.

### **Invited talks** .....

**June 2024: "OHBM Brainhack 2024"** Intro talk as the brainhack chair for OHBM Brainhack 2024, Seoul, South Korea.

**July 2023: "Cerebro: One tool to view them all!"** Software pitch at OHBM Brainhack 2023, Montreal, Canada.

**March 2023: "Charting the human brain; toward resolution-independent reusable normative brain models"** Talk at Donders Institute for Brain, Cognition and Behaviour, Nijmegen, The Netherlands.

**February 2023: "Charting the human brain; toward resolution-independent, interpretable, and reusable normative brain models"** Talk at Charité – Universitätsmedizin, Berlin, Germany.

**February 2023: "High-resolution Connectomics, a tale of two disciplines"** Talk at Charité – Universitätsmedizin, Berlin, Germany.

**December 2022: "Cerebro: One tool to view them all!"** Software pitch at Brainhack Global (Australasia hub), The University of Sydney, Sydney, Australia.

**November 2022: "Computational models of High-resolution Human Connectomics, a tale of two disciplines"** Talk at Mathematics of The Interactions Between Brain Structure and Brain Functions, MATRIX House, Creswick, Victoria, Australia.

**July 2022: "An introduction to High-resolution Human Connectomics & its applications"** Research presentation hosted by the neuroanatomy and tractography laboratory (Natbrainlab) King's College London, London, United Kingdom.

**May 2022: "Connectome Spatial Smoothing"** Virtual research presentation at lab meeting hosted by the Shine Lab, University of Sydney, Sydney, Australia.

**March 2022: "Workshop on white-matter tractography"** Virtual workshop at lab meeting hosted by the Computational & Systems Neuroscience Laboratory, Monash University, Clayton Campus, Melbourne, Australia.

**February 2022: "Connectome Spatial Smoothing"** Virtual research presentation at lab meeting hosted by Sydney Imaging and Brain & Mind Centre (BMC), University of Sydney, Sydney, Australia.

**February 2022: "High-resolution Connectomics"** Research presentation at lab meeting hosted by the Computational & Systems Neuroscience Laboratory, Monash University, Clayton Campus, Melbourne, Australia.

**October 2021: "High-resolution Connectomics"** Research presentation at lab meeting hosted by the Neural Systems and Behavior lab, Monash University, Clayton Campus, Melbourne, Australia.

**September 2021: "High-resolution connectomic fingerprints: Mapping neural identity and behavior"** Research presentation at the Neuroimage Journal Club hosted by Sydney Imaging and Brain & Mind Centre

(BMC), University of Sydney, Sydney, Australia.

**August 2021: "High-resolution Connectomics"** Research presentation at the Melbourne-Berlin Brain Connectivity and Machine Learning Online Workshop.

**August 2021: "Connectome-based Smoothing"** Research presentation at the Biomedical Engineering Colloquium hosted by Department of Biomedical Engineering, University of Melbourne, Melbourne, Australia.

**April 2021: "Neural correlates of identity and behavior"**: research presentation hosted by the Systems Neuropsychiatry Lab at Melbourne Neuropsychiatry Centre, Melbourne, Australia.

**March 2021: "High-resolution connectivity; A novel biomarker of brain-behavior associations"**: research presentation in the webinar series on "Improved methods and important considerations for correlating brain and behavior" organized by the Australian Chapter of the Organization for Human Brain Mapping.

**November 2020: "High-Resolution Brain Networks as Cerebral Fingerprints"** Research presentation at the Biomedical Engineering Colloquium hosted by Department of Biomedical Engineering, University of Melbourne, Melbourne, Australia.

**October 2019: "Structural Connectome Fingerprinting"** Research presentation at the Biomedical Engineering Colloquium hosted by Department of Biomedical Engineering, University of Melbourne, Melbourne, Australia.

## Leadership and Committee Involvement

---

**2024:** Hackathon Chair, [OHBM OSSIG](#); [OHBM Brainhack 2024](#) (International hackathon)

**2023:** Project Instigator ([Cerebro](#)), OHBM Brainhack 2023

**2023:** Hackathon Co-chair Elect, OHBM OSSIG; [OHBM Brainhack 2023](#) (International hackathon)

**2022:** Project Instigator ([Cerebro](#)), Brainhack Global 2022 (Australasia Hub)

**2022:** Hackathon Organizer, [Brainhack Global 2022](#) (Australasia Hub)

**2020–2021:** Chair, [IEEE Student Branch at The University of Melbourne](#)

**2020:** Victorian Section Ambassador, [IEEE Xtreme 14.0](#) Programming Competition

**2019–2020:** Vice-chair, [IEEE Student Branch at The University of Melbourne](#)

**2018–2019:** Secretary, [IEEE Student Branch at The University of Melbourne](#)

## Teaching Experience

---

**2021:** Tutor and Organizer, Unlock Xtreme 15.0, IEEE student branch of University of Melbourne, Online

**2021:** Tutor, Applied Computation in Bioengineering, The University of Melbourne, Online

**2021:** Tutor, Circuits and Systems, The University of Melbourne, Online

**2021:** Tutor, Machine Learning and Data Visualization with Python, OHBM Brainhack 2021, Online

**2020:** Tutor and Organizer, Unlock Xtreme 14.0, IEEE student branch of University of Melbourne, Online

**2020:** Tutor and Project lead, OHBM Brainhack 2020, Online

**2019:** Tutor and coordinator, Programming for Neuroimaging Data Analysis (PNDA) workshop series, Melbourne Neuropsychiatry Centre, Melbourne, Australia

**2016:** Tutor, Operating Systems, Sharif Univ. of Technology, Tehran, Iran

**2015:** Tutor and lab demonstrator, Advanced C++ Programming, Sharif Univ. of Technology, Tehran, Iran)