

Ana Luísa Pinho

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Current position

BrainsCAN Postdoctoral Fellow, University of Western Ontario, London ON, Canada
Advisors: Jörn Diedrichsen and Jessica Grahm

Appointments held

2015-2020	<i>Postdoctoral Researcher</i> , Parietal Team, Inria Saclay – Île-de-France, France Advisor: Bertrand Thirion
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Education

2009-2015	PhD in Health Sciences (branch: Biomedical Sciences) Institutions: University of Coimbra (Coimbra, Portugal) and Karolinska Institutet (Stockholm, Sweden) Thesis title: <i>Inside of the Creative Mind: Unravelling the Neurocognitive Mechanisms of Musical Creativity</i> (http://hdl.handle.net/10316/27005) Faculty advisors: Fredrik Ullén, Örjan de Manzano, Peter Fransson, Miguel Castelo-Branco
1999-2008	MSC + LICENTIATE DEGREES (Integrated Master) in Engineering Physics Institution: Instituto Superior Técnico, University of Lisbon (Lisbon, Portugal) Thesis title: <i>Probabilistic non-linear earthquake location in a 3-D velocity model</i> (https://fenix.tecnico.ulisboa.pt/cursos/meft/dissertacao/2353642196027) Faculty advisor: João Fonseca

Fellowships, grants & awards

2021–present	BrainsCAN Postdoctoral Fellowship, Western University (London ON, Canada) Amount (2y): ~ 150000CAD
2013–2014	Research fellowship, Sven and Dagmar Saléns Foundation (Stockholm, Sweden) Amount: ~ 144000SEK
2013	Prize of <i>The Best Poster Communication</i> in the Symposium “Music, Poetry & The Brain - Celebrating Wagner’s Bicentennial”, Rectory of NOVA University Lisbon (Lisbon, Portugal)
2009–2013	PhD studentship from Foundation of Science and Technology (FCT) (SFRH/BD/33895/2009) under the PHD Programme in Experimental Biology and Biomedicine of Center for Neuroscience and Cell Biology, University of Coimbra (Coimbra, Portugal) Amount: ~ 80153€
2006–2007	Scientific initiation grant in Seismology from FCT, Instituto Superior Técnico (Lisbon, Portugal) Amount: ~ 3600€

Publications

JOURNAL ARTICLES

2022	Pinho, A. L., Richard, H., Eickenberg, M., Amadon, A., Dohmatob, E., Shankar, S., Aggarwala, H., Denghien, I., Torre, J. J., Ginisty, C., Becuwe-Desmidt, S., Roger, S., Lecomte, Y., Berland, V., Laurier, L., Joly-Testault, V., Médiouni-Cloarec, G., Doublé, C., Martins, B., Varoquaux, G., Dehaene, S., Hertz-Pannier, L., & Thirion, B. - Individual Brain Charting dataset: probing the visual, auditory and language systems with naturalistic stimuli - (<i>in preparation</i>)
2022	Uddin, L. Q., Betzel, R. F., Cohen, J. R., Damoiseaux, J. S., De Brigard, F., Eickoff, S. B., Fornito, A., Gratton, C., Gordon, E. V., Laird, A., Larson-Prior, L. J., McIntosh, A. R., Nickerson, L. D., Pinho, A. L., Poldrack, R., Razi, A., Sadaghiani, S., Shine, J. M., Yendiki, A., Yeo, B. T. T., Spreng, R. N. Controversies and current progress on large-scale brain network nomenclature from OHBM WHATNET: Workgroup for HArmonized Taxonomy of NETworks. (<i>under review</i>) preprint: 10.31219/osf.io/25za6
2021	Levitis, E., Gould van Praag, C. D., Gau, R., Heunis, S., DuPre, E., (...), Pinho, A. L., (...), Maumet, C. Centering inclusivity in the design of online conferences—An OHBM–Open Science perspective. <i>GigaScience</i> ; 10(8):giab051. doi: 10.1093/gigascience/giab051
2021	Thirion, B., Thual, A., & Pinho, A. L. From deep brain phenotyping to functional atlas. <i>Current Opinion in Behavioral Sciences</i> ; 40:201–202 doi: 10.1016/j.cobeha.2021.05.004
2021	Dohmatob, E., Richard, H., Pinho, A. L., & Thirion, B. Brain topography beyond parcellations: local gradients of functional maps. <i>NeuroImage</i> ; 229:117706. doi: 10.1016/j.neuroimage.2020.117706
2021	Pinho, A. L., Amadon, A., Fabre, M., Dohmatob, E., Denghien, I., Torre, J. J., Ginisty, C., Becuwe-Desmidt, S., Roger, S., Laurier, L., Joly-Testault, V., Médiouni-Cloarec, G., Doublé, C., Martins, B., Pinel, P., Eger, E., Varoquaux, G., Pallier, C., Dehaene, S., Hertz-Pannier, L., & Thirion, B. Subject-specific segregation of functional territories based on deep phenotyping. <i>Human Brain Mapping</i> ; 42(4): 841–870. doi: 10.1002/hbm.25189
2020	Pinho, A. L., Amadon, A., Ruest, T., Fabre, M., Gauthier, B., Clairis, N., Knops, A., Genon, S., Dohmatob, E., Denghien, I., Torre, J. J., Ginisty, C., Becuwe-Desmidt, S., Roger, S., Lecomte, Y., Berland, V., Laurier, L., Joly-Testault, V., Médiouni-Cloarec, G., Doublé, C., Martins, B., Salmon, E., Piazza, M., Melcher, D., Pessiglione, M., van Wassenhove, V., Pinel, P., Eger, E., Varoquaux, G., Pallier, C., Dehaene, S., Hertz-Pannier, L., & Thirion, B. Individual Brain Charting dataset exten-

- sion, second release of high-resolution fMRI data for cognitive mapping. *Scientific Data*; 7(1): 353. doi: [10.1038/s41597-020-00670-4](https://doi.org/10.1038/s41597-020-00670-4)
- 2019 (preprint) Richard, H., Martin, L., Pinho, A. L., Pillow, J., & Thirion, B. Fast shared response model for fMRI data. September 2019. [arXiv: 1909.12537](https://arxiv.org/abs/1909.12537)
- 2019 Schrouff, J., Pischke, D., Genon, S., Fryns, G., Pinho, A. L., Vassena, E., Liuzzi, A. G., & Ferreira, F. S. - Gender bias in (neuro)science: Facts, consequences, and solutions - *European Journal of Neuroscience*; 50(7):3094-3100. doi: [10.1111/ejn.14397](https://doi.org/10.1111/ejn.14397)
- 2018 Richard, H., Pinho, A. L., Thirion, B., & Charpiat, G. - Optimizing deep video representation to match brain activity. CCN2018 - Conference on Cognitive Computational Neuroscience, September 2018, Philadelphia, United States. [hal id: hal-01868735](https://hal.archives-ouvertes.fr/hal-01868735)
- 2018 Pinho, A. L., Amadon, A., Ruest, T., Fabre, M., Dohmatob, E., Denghien, I., Ginisty, C., Becuwe-Desmidt, S., Roger, S., Laurier, L., Joly-Testault, V., Médiouni-Cloarec, G., Doublé, C., Martins, B., Pinel, P., Eger, E., Varoquaux, G., Pallier, C., Dehaene, S., Hertz-Pannier, L., & Thirion, B. - Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping - *Scientific Data*; 5:180105, June 2018. doi: [10.1038/sdata.2018.105](https://doi.org/10.1038/sdata.2018.105).
- 2016 Pinho, A. L., Ullén, F., Castelo-Branco, M., Fransson, P., & de Manzano, Ö. - Addressing a Paradox: Dual Strategies for Creative Performance in Introspective and Extrospective Networks - *Cerebral Cortex*; 26(7):3052-63, July 2016. doi: [10.1093/cercor/bhv130](https://doi.org/10.1093/cercor/bhv130). Epub 2015 Jun 17.
- 2014 Pinho, A. L., de Manzano, Ö, Fransson, P., Eriksson, H., & Ullén, F. - Connecting to Create: Expertise in Musical Improvisation Is Associated with Increased Functional Connectivity between Premotor and Prefrontal Areas - *The Journal of Neuroscience*; 34(18):6156-63, April 2014. doi: [10.1523/JNEUROSCI.4769-13.2014](https://doi.org/10.1523/JNEUROSCI.4769-13.2014)

BOOKS

- 2018 Pinho, A. L., The Neuropsychological Aspects of Musical Creativity. (2018) In Kapoula, Z., Volle, E., Renault, J., Andreatta, M. (Eds.), *Exploring Transdisciplinarity in Art and Sciences* (pp 77-103) Springer. doi: [10.1007/978-3-319-76054-4_4](https://doi.org/10.1007/978-3-319-76054-4_4)

NON-REFEREED CONTRIBUTIONS

- 2020 Pinho, A. L., Torre, J. J., Shankar, S., & Thirion, B. Individual Brain Charting: Dataset Documentation. Available on: <https://project.inria.fr/IBC/>

DATASETS

- 2020c Pinho, A. L. et al. Individual Brain Charting. *OpenNeuro*, ds002685. DOI: [10.18112/openneuro.ds002685.v1.0.0](https://doi.org/10.18112/openneuro.ds002685.v1.0.0)
- 2020b Pinho, A. L. et al. Individual Brain Charting (IBC, release 2). *EBRAINS*. DOI: [10.25493/XX28-VJ1](https://doi.org/10.25493/XX28-VJ1)
- 2020a Pinho, A. L. et al. IBC release 2. *NeuroVault*, id collection=6618. Persistent Identifier: <https://identifiers.org/neurovault.collection:6618>

SOFTWARE

- 2022-present Contributor to *NeuroCausal*: “An open data sharing and metadata synthesis platform for clinical data”, URL: <https://neurocausal.github.io>
- 2021-present Contributor to *WiNRepo*: “Women in Neuroscience Repository” URL: <https://github.com/WomenInNeuroscience/winrepo>
- 2017-present Contributor to *Nilearn*: “Statistics for NeuroImaging in Python” URL: <https://github.com/nilearn/nilearn>
- 2015-present Contributor to the *Repository of Public Analysis Code for the IBC Project*.

2015–2020 URL: https://github.com/hbp-brain-charting/public_analysis_code
Contributor to the *Repository of Public Protocols for the IBC Project*.
URL: https://github.com/hbp-brain-charting/public_protocols

BLOG POSTS

2020 “The Individual Brain Charting project, a high-resolution, task-fMRI dataset for a comprehensive cognitive mapping of the human brain.”, Behind the Paper, Springer Nature - Research Data Community. URL: <https://researchdata.springernature.com/posts/the-individual-brain-charting-project>

REVIEW ASSIGNMENTS

External reviewer for: *Cerebral Cortex*, *NeuroImage*, *Scientific Data*, *Scientific Reports*, *Brain Structure and Function*, *Brain Imaging and Behavior* and *Frontiers in Psychology*

MEDIA

2014 Interview *Inside Neuroscience - Tuning the Brain to Music: Creativity and Connetivity*, Neuroscience Quarterly (newsletter produced by Society for Neuroscience), Spring 2014
2014 Interview to American Association for the Advancement of Science (AAAS) - *Musical Creativity - Science Update*
2013 Participation in the Press Conference of Neuroscience 2013, SfN Conference - *Musical training shapes brain anatomy and affects function*, November 2013
2013 Interventions in the portuguese media with interviews to the radio TSF and the tv-channel ETV, November 2013

Conferences and Seminars

TALKS

2023 *Deep behavioral phenotyping in functional MRI for cognitive mapping of the human brain*, Online Seminar for the Cognitive Science lab, IIIT-H, Hyderabad-Telangana, India (scheduled for January 2023)
2022 *Deep behavioral phenotyping in functional MRI for cognitive mapping of the human brain*, Seminar at SIMEXP Lab, Institut universitaire de g riatrie de Montr al (IUGM), University of Montreal
2021c *The Women in Neuroscience Repository (WiNRepo)*, BrainHack Fall 2021
2021b *Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset*, Online Seminar for the Stockholm University Brain Imaging Centre
2021a *Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset*, Online Seminar for the Diedrichsen Lab – Western University
2020e *Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset*, Online Seminar for the Poldrack Lab – Stanford University
2020d *Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset*, Online Seminar for the Institute of Neuroscience and Medicine, Brain and Behaviour (INM-7) – J lich Research Center
2020c *The Women in Neuroscience Repository (WiNRepo): improving the visibility of women neuroscientists*, Open Theatre Sessions, Federation of European Neuroscience Societies (FENS) 2020 Virtual Forum
2020b *Segregation of functional territories in individual brains*, Oral presentation in Session *Modeling and Analysis: Variability in Brain Activation*, Organization for Human Brain Mapping (OHBM) Annual (Virtual) Meeting 2020
2020a *Individual Brain Charting dataset extension: second and third releases*, Open Science Room (session: *Open Data 2.0*), OHBM Annual (Virtual) Meeting 2020

- 2019d *Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping of the human brain*, Open Science Room (session: *From statistical to biological validity*), OHBM Annual Meeting 2019, Rome, Italy
- 2019c *Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping of the human brain.*, Science Pizza event, Institute for Brain and Spinal Cord (ICM), Paris, France
- 2019b *Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping of the human brain.*, The 5th CiNet Conference, Center for Information and Neural Networks (CiNet), Osaka, Japan
- 2019a *Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping of the human brain*, 3rd HBP Student Conference, Ghent, Belgium
- 2014 *Mecanismos Neurocognitivos associados à Criatividade Musical* (“Neurocognitive Mechanisms of Musical Creativity”), Scientific Congress organized by Núcleo de Estudantes de Farmácia da Associação Académica de Coimbra (NEF/AAC), Coimbra, Portugal
- 2013b *Neural Basis of Expertise in Musical Creativity*, 3rd European Professional Women’s Network (EPWN) Lisbon Annual Meeting - Creativity&Innovation - new economic models to overcome the crisis, Lisbon, Portugal
- 2013a *Neural Basis of Expertise in Musical Creativity*, Neuroscience 2013 (Annual Meeting of SfN), San Diego, USA
- 2012 *Anatomical and Functional Brain Reorganizations Associated with Expertise in Musical Creativity* (PhD Half-Time Seminar), Annual Meeting of Centre for Neuroscience and Cell Biology (CNC), BIOCANT Park, Cantanhede, Portugal

PANEL DISCUSSIONS

- 2021b *Multilingual kids review – Portuguese session*, OHBM Annual (Virtual) Meeting 2021
- 2021a *Deep neuroimaging data - a community perspective*, OHBM 2021 Brainhack

POSTER PRESENTATIONS

- 2020c *Individual functional atlasing for cognitive mapping of the human brain*, FENS 2020 Virtual Forum
- 2020b *Segregation of functional territories in individual brains*, OHBM Annual (Virtual) Meeting 2020
- 2020a *WP2.1 Multimodal whole-brain mapping*, annual HBP Summit, Athens, Greece
- 2019b *Functional specialization in human cognition: a large-scale neuroimaging initiative*, OHBM Annual Meeting 2019, Rome, Italy
- 2019a *Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping of the human brain* (Electronic Poster), Neuroscience 2018 (Annual Meeting of SfN), San Diego, USA
- 2018b *Individual Brain Charting, a high-resolution fMRI dataset for cognitive mapping* (Electronic Poster), Open Day of the 6th annual HBP Summit, Maastricht, Netherlands
- 2018a *Mapping human cognition at high spatial resolution with a task-rich fMRI dataset*, OHBM Annual Meeting 2018, Singapore
- 2017c *Individual Brain Charting: a task-fMRI dataset for cognitive mapping*, 5th annual HBP Summit, Glasgow, Scotland
- 2017b *Mapping cognitive concepts to brain activity with a high-resolution individual data and a cognitive ontology*, OHBM Annual Meeting 2017, Vancouver, Canada
- 2017a *Individual Brain Charting: Mapping cognitive concepts to brain activity with a high-resolution individual data and a cognitive ontology*, New Concepts in Neural Pattern Encoding, Neuroscience Workshop Saclay (NeWS), Gif-sur-Yvette, France
- 2016e *Individual Brain Charting: a neuroimaging database featuring the first functional atlas of the human brain* (Electronic Poster), Neuroscience 2016 (Annual Meeting of SfN), San Diego, USA
- 2016d *Individual Brain Charting: a comprehensive neuroimaging database towards a macroscopic representation of the human brain*, 4th annual HBP Summit, Florence, Italy
- 2016c *Individual Brain Charting: a comprehensive neuroimaging database towards a macroscopic representation of the human brain*, FENS, Copenhagen, Denmark

2016b	<i>Individual Brain Charting: high-resolution normative fMRI database</i> , OHBM Annual Meeting 2016, Geneva, Switzerland
2016a	<i>High resolution encoding of cognitive information within the IBC project</i> , New Concepts in Neural Pattern Encoding, NeWS, Gif-sur-Yvette, France
2014	<i>Feeling and structure - neural correlates of musical improvisation under different constraints</i> , The Neurosciences and Music - V: Cognitive Stimulation and Rehabilitation, Dijon, France
2013	<i>Functional Brain Reorganizations Associated with Expertise in Musical Creativity</i> , Music, Poetry & The Brain - Celebrating Wagner's Bicentennial, Lisboa, Portugal
2012	<i>Sex Differences in Training Effects - an fMRI study on Musical Improvisation</i> , Workshop on Music in Neuroscience, Monte Verità, Ascona, Switzerland
2011	<i>Selection and Generation in Musical Creativity - an fMRI study</i> , The Neurosciences and Music - IV: Learning and Memory, Edinburgh, UK

COLLABORATIVE-PROJECT PRESENTATIONS

2017	Nilearn development - OHBM hackathon 2017, Vancouver, Canada
2016	Nistats development - Brainhack, Paris, France

Competences

COMPUTER SKILLS

- Good command in *Linux* and *Windows* environment
- Programming languages: Python (Libraries and Frameworks: Numpy, Pandas, Scipy, Scikit-learn, Matplotlib, Django); Matlab&Octave; L^AT_EX; HTML&CSS; Bash; Lisp; SQL; R; Mathematica; C; Assembly
- Software Tools for Neuroimaging: Nilearn; SPM; FSL; FreeSurfer; Papaya; Connectome Workbench; MRICron&MRICroGL; BrainVoyager
- Tools for designing and conducting multimodal-stimuli experiments in neuroscience: Expyriment; Psychtoolbox; E-Prime&E-Basic; PsychoPy; Presentation

LANGUAGE SKILLS

- Portuguese – native speaker
- English – bilingual proficiency
- French – professional-working proficiency

DRIVING LICENCE

- Full G driving licence (issued in Ontario, Canada)

Other Information

MEMBERSHIPS

2017-present	Member of the <i>Portuguese Society for Neuroscience</i>
2016-2020	Member of the <i>Organization for Human Brain Mapping</i>

VOLUNTEERING

- 2020–present Member of the *WHATNET: Workgroup for HArmonized Taxonomy of NETworks*
- 2018–present Affirmative action in gender equity:
board member of the *Women in Neuroscience Repository* (WiNRepo). <https://www.winrepo.org/>.

OUTREACH AND COMMUNICATION ACTIVITIES

- 2022 Promoting [OurBrainsCAN](#) to the London ON community at the [TD Sunfest](#)

Last update: November 26, 2022