Ana Luísa Pinho

Full Name Ana Luísa Grilo Pinho

Office contact Western Interdisciplinary Research Building (WIRB)

Brain and Mind Institute, room 4130

Western University, Dock #76, 1151 Richmond St N

London, Ontario N6A 3K7, Canada

Online E-MAIL ADDRESSES: agrilopi@uwo.ca / anagpinho@gmail.com

info/contacts WEBSITE: https://alpinho.github.io

GitHub: @alpinho Google Scholar: https://scholar.google.ca/citations?user=wb9Io7gAAAAJ&hl=en

ORCID: https://orcid.org/0000-0001-8718-0902

TWITTER: @ALuisaPinho

MASTODON: @ALuisaPinho@fediscience.org

Current position

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

J

Appointments held

Postdoctoral Researcher, Parietal Team, Inria Saclay – Île-de-France, France

Advisor: Bertrand Thirion

Education

2015-2020

2009-2015 PHD in Health Sciences (branch: Biomedical Sciences)

Institutions: University of Coimbra (Coimbra, Portugal) and

Karolinska Institutet (Stockholm, Sweden)

Thesis title: Inside of the Creative Mind: Unravelling the Neurocognitive Mechanisms of Musical

Creativity (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: *Probabilistic non-linear earthquake location in a 3–D velocity model*

(https://fenix.tecnico.ulisboa.pt/cursos/meft/dissertacao/2353642196027)

Faculty advisor: João Fonseca

Fellowships, grants & awards

BrainsCAN Postdoctoral Fellowship, Western University (London ON, Canada)

Amount (2y): ~150000CAD

- 2013-2014 Research fellowship, Sven and Dagmar Saléns Foundation (Stockholm, Sweden) Amount: ∼144000SEK
- Prize of *The Best Poster Communication* in the Symposium "Music, Poetry & The Brain Celebrating Wagner's Bicentennial", Rectory of NOVA University Lisbon (Lisbon, Portugal)
- 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

- 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 (in preparation)
- 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. (under review) preprint: 10.31219/osf.io/25za6
- 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. *GigaScience*; 10(8):giabo51. doi: 10.1093/gigascience/giabo51
- Thirion, B., Thual, A., & Pinho, A. L. From deep brain phenotyping to functional atlasing. Current Opinion in Behavioral Sciences; 40:201-202 doi: 10.1016/j.cobeha.2021.05.004
- Dohmatob, E., Richard, H., <u>Pinho, A. L., & Thirion, B. Brain topography beyond parcellations: local gradients of functional maps. NeuroImage</u>; 229:117706. doi: 10.1016/j.neuroimage.2020.117706
- 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. *Human Brain Mapping*;

- 42(4): 841-870. doi: 10.1002/hbm.25189
- 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 extension, second release of high-resolution fMRI data for cognitive mapping. *Scientific Data*; 7(1): 353. 10.1038/s41597-020-00670-4
- (preprint) Richard, H., Martin, L., Pinho, A. L., Pillow, J., & Thirion, B. Fast shared response model for fMRI data. September 2019. arXiv: 1909.12537
- Schrouff, J., Pischedda, 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
- 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
- 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.
- 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. Epub 2015 Jun17.
- 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

Воокѕ

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

Non-Refereed contributions

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. <i>OpenNeuro</i> , dsoo2685. DOI: 10.18112/openneuro.dsoo2685.v1.o.o
2020b	Pinho, A. L. et al. Individual Brain Charting (IBC, release 2). EBRAINS. DOI: 10.25493/XX28-VJ1
2020a	Pinho, A. L. et al. IBC release 2. <i>NeuroVault</i> , id collection=6618. Persistent Identifier: https://identiers.org/neurovault.collection:6618
	Software
2022-present	Contributer to <i>NeuroCausal</i> : "An open data sharing and metadata synthesis platform for clinical data", URL: https://neurocausal.github.io
2021-present	Contributer to WiNRepo: "Women in Neuroscience Repository" URL: https://github.com/WomenInNeuroscience/winrepo
2017–present	Contributer to <i>Nilearn</i> : "Statistics for NeuroImaging in Python" URL: https://github.com/nilearn/nilearn
2015-present	Contributer to the <i>Repository of Public Analysis Code for the IBC Project</i> . URL: https://github.com/hbp-brain-charting/public_analysis_code
2015-2020	Contributer to the <i>Repository of Public Protocols for the IBC Project</i> . 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

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

Interventions in the portuguese media with interviews to the radio TSF and the tv-channel ETV, November 2013

Conferences and Seminars

7	٦,		77	,
	Ι Δ.	1	ĸ	۷,

2013

- 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)
- Deep behavioral phenotyping in functional MRI for cognitive mapping of the human brain, Seminar at SIMEXP Lab, Institut universitaire de gériatrie de Montréal (IUGM), University of Montreal
 The Women in Neuroscience Repository (WiNRepo), BrainHack Fall 2021
- Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset, Online Seminar for the Stockholm University Brain Imaging Centre
- Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset, Online Seminar for the Diedrichsen Lab Western University
- Individual functional atlasing of the human brain with multitask fMRI data: leveraging the IBC dataset, Online Seminar for the Poldrack Lab Stanford University
- 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) Jülich Research Center
- The Women in Neuroscience Repository (WiNRepo): improving the visibility of women neuroscientists, Open Theatre Sessions, Federation of European Neuroscience Societies (FENS) 2020 Virtual Forum
- 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
- Individual Brain Charting dataset extension: second and third releases, Open Science Room (session: Open Data 2.0), OHBM Annual (Virtual) Meeting 2020
- 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
- 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
- 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,

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, $3^{\rm rd}$ 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), Sar 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 Annua 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 6 th annual HBP Summit, Maastricht, Netherlands
2018a	Mapping human cognition at high spatial resolution with a task-rich fMRI dataset, OHBM Annua Meeting 2018, Singapore
2017c	Individual Brain Charting: a task-fMRI dataset for cognitive mapping, $5^{\rm th}$ annual HBP Summit, Glasgow, Scotland
2017b	Mapping cognitive concepts to brain activity with a high-resolution individual data and a cognitive ontology OHBM Appual Meeting 2017 Vancouver Canada

 $3^{\rm rd}$ HBP Student Conference, Ghent, Belgium

- Individual Brain Charting: Mapping cognitive concepts to brain activity with a high-resolution in-20178 dividual data and a cognitive ontology, New Concepts in Neural Pattern Encoding, Neuroscience Workshop Saclay (NeWS), Gif-sur-Yvette, France Individual Brain Charting: a neuroimaging database featuring the first functional atlas of the hu-20166 man brain (Electronic Poster), Neuroscience 2016 (Annual Meeting of SfN), San Diego, USA Individual Brain Charting: a comprehensive neuroimaging database towards a macroscopic repre-2016d sentation of the human brain, 4th annual HBP Summit, Florence, Italy Individual Brain Charting: a comprehensive neuroimaging database towards a macroscopic repre-20160 sentation of the human brain, FENS, Copenhagen, Denmark 2016b Individual Brain Charting: high-resolution normative fMRI database, OHBM Annual Meeting 2016, Geneva, Switzerland High resolution encoding of cognitive information within the IBC project, New Concepts in Neu-2016a ral Pattern Encoding, NeWS, Gif-sur-Yvette, France Feeling and structure - neural correlates of musical improvisation under different constraints, The 2014 Neurosciences and Music - V: Cognitive Stimulation and Rehabilitation, Dijon, France Functional Brain Reorganizations Associated with Expertise in Musical Creativity, Music, Poetry & 2013 The Brain - Celebrating Wagner's Bicentennial, Lisboa, Portugal Sex Differences in Training Effects - an fMRI study on Musical Improvisation, Workshop on Mu-2012 sic in Neuroscience, Monte Verità, Ascona, Switzerland Selection and Generation in Musical Creativity - an fMRI study, The Neurosciences and Music -IV: Learning and Memory, Edinburgh, UK Collaborative-project Presentations
- Nilearn development OHBM hackathon 2017, Vancouver, Canada
- Nistats development Brainhack, Paris, France

Competences

COMPUTER SKILLS

- Good command in Linux and Windows environment
- Programming languages: Python (Libraries and Frameworks: Numpy, Pandas, Scipy, Scikitlearn, Matplotlib, Django); Matlab&Octave; LTEX; 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 Portuguese Society for Neuroscience

VOLUNTEERING

2022

^{2020-present} Member of the WHATNET: Workgroup for HArmonized Taxonomy of NETworks

Affirmative action in gender equity: board member of the *Women in Neuroscience Repository* (WiNRepo). https://www.winrepo.org/.

OUTREACH AND COMMUNICATION ACTIVITTIES

Promoting OurBrainsCAN to the London ON community at the TD Sunfest