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
info/contacts   E-mail address: agrilopi@uwo.ca / anagpinho@gmail.com
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

Appointments held

2015-2020   *Postdoctoral Researcher*, Parietal Team, Inria Saclay – Île-de-France, France
Advisor: Bertrand Thirion

Education

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

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 *The Best Poster Communication* 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 - *(in preparation)*

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. *(under review)*
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. *GigaScience*; 10(8):giab051. doi: 10.1093/gigascience/giab051

2021 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

2021 Dohmatob, E., Richard, H., Pinho, A. L., & Thirion, B. Brain topography beyond parcellations: local gradients of functional maps. *NeuroImage*; 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. *Human Brain Mapping*; 42(4): 841– 870. doi: 10.1002/hbm.25189

2020   <u>Pinho, A. L.</u>, 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

2019   (preprint) Richard, H., Martin, L., <u>Pinho, A. L.</u>, Pillow, J., & Thirion, B. Fast shared response model for fMRI data. September 2019. arXiv: 1909.12537

2019   Schrouff, J., Pischedda, D., Genon, S., Fryns, G., <u>Pinho, A. L.</u>, 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

2018   Richard, H., <u>Pinho, A. L.</u>, 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

2018   <u>Pinho, A. L.</u>, 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.

2016   <u>Pinho, A. L.</u>, 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.

2014   <u>Pinho, A. L.</u>, 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

Books

2018   <u>Pinho, A. L.</u>, 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

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

Datasets

2020c   <u>Pinho, A. L.</u> et al. Individual Brain Charting. *OpenNeuro*, ds002685.
DOI: 10.18112/openneuro.ds002685.v1.0.0

2020b   <u>Pinho, A. L.</u> et al. Individual Brain Charting (IBC, release 2). *EBRAINS*. DOI: 10.25493/XX28-VJ1

2020a   <u>Pinho, A. L.</u> et al. IBC release 2. *NeuroVault*, id collection=6618.
Persistent Identifier: https://identiers.org/neurovault.collection:6618

Software

2022–present   Contributer to *NeuroCausal*: "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 *Nilearn*: "Statistics for NeuroImaging in Python"
URL: https://github.com/nilearn/nilearn

2015–present   Contributer to the *Repository of Public Analysis Code for the IBC Project.*
URL: https://github.com/hbp-brain-charting/public_analysis_code

2015–2020   Contributer 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

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 gériatrie de Montréal (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) – Jülich 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* (<u>Electronic Poster</u>), 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   *Individual Brain Charting: high-resolution normative fMRI database*, OHBM Annual Meeting 2016, Geneva, Switzerland

2016a   *High resolution encoding of cognitive information within the IBC project*, New Concepts in Neural Pattern Encoding, NeWS, Gif-sur-Yvette, France

2014   *Feeling and structure - neural correlates of musical improvisation under different constraints*, The Neurosciences and Music - V: Cognitive Stimulation and Rehabilitation, Dijon, France

2013   *Functional Brain Reorganizations Associated with Expertise in Musical Creativity*, Music, Poetry & The Brain - Celebrating Wagner's Bicentennial, Lisboa, Portugal

2012   *Sex Differences in Training Effects - an fMRI study on Musical Improvisation*, Workshop on Music in Neuroscience, Monte Verità, Ascona, Switzerland

2011   *Selection and Generation in Musical Creativity - an fMRI study*, 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; LATEX; 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

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 Activitties

2022   Promoting OurBrainsCAN to the London ON community at the TD Sunfest