



RAFAEL ROMÁN-CABALLERO

I am cognitive psychologist that have been able to bring together **my two passions**: the understanding of **the brain and the mind**, and **music**. During my childhood I learnt to play the violin and discovered my passion for melodies and the hidden emotions, imperturbable in time, behind the scores. Years later I studied a **Bachelor's degree in Psychology** (2013–2017) at the University of Granada (Spain), where I also completed a **Master's degree in Cognitive Neuroscience** (2017–2018) and a **PhD in Psychology of Music** (2018–2023). Currently, I work at the Department of Experimental Psychology of the **University of Granada (Spain)** and in the Department of Psychology, Neuroscience and Behaviour of the **McMaster University (Canada)** in the context of a **Marie Skłodowska-Curie Global Postdoctoral Fellowship**. My work focuses on different aspects of psychology of music, cognitive training, attention and vigilance, social cognition, and meta-science. My current project is '*Distinguishing infant-directed speech and songs: The distinctive evolution of acoustic features and visual entrainment in infants*'.

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rrarroca.com>

[Rafael_Roman-Caballero](#)

[0000-0003-0943-6217](#)

[@rrarroca](#)

PERSONAL DETAILS

Address
Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address
rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



EDUCATION

- 2018–2023 **PhD**
University of Granada
- 2017–2018 **Master in Behavioral and Cognitive Neuroscience**
University of Granada
Average grade of 9.6 (out of 10)
- 2013–2017 **Degree in Psychology**
University of Granada
Average grade of 9.4 (out of 10)
University award for the best grades of the Psychology promotion
- 2003–2013 **Elementary and Professional levels of musical studies**
Conservatory of Córdoba 'Musician Ziryab'
Speciality: Violin interpretation



RAFAEL ROMÁN-CABALLERO

EXPERIENCE



Research

- Current** **Marie Skłodowska-Curie Global Postdoctoral Fellowship at McMaster University (Canada) and University of Granada**
Three-year fellowship from the European Union
To support postdoctoral research and teaching
- 2023–2024** **Postdoctoral position at University of Granada**
One-year postdoctoral position
Studies in attention and rhythm with Prof. Mariagrazia Capizzi
- 2021** **Research Assistant at McMaster University (Canada)**
Three-month research internship, from September to November of 2021
Studies in music neuroscience with Prof. Laurel Trainor
- 2019** **Research Assistant at McMaster University (Canada)**
Two-month research internship, July and August of 2019
Studies in music neuroscience with Professor Laurel Trainor
- 2018–2023** **FPU doctoral grant**
Four-year scholarship from the Spanish Ministry of Education, Culture and Sport
To support research and teaching during PhD
- 2017** **Research Assistant at Bangor University (UK)**
One-month research internship, August and September of 2017
Studies in attention with Paloma Mari-Beffa, PhD
- 2016–2017** **Research Assistant at the Department of Experimental Psychology of University of Granada**
Full-course scholarship from the Spanish Ministry of Education
Studies in Vigilance and Transcranial Direct Current Stimulation, with Prof. Juan Lupiáñez and Prof. Elisa Martín-Arévalo
- 2015–2016** **Research Assistant at the Department of Experimental Psychology of University of Granada**
Full-course scholarship from the University of Granada
Studies in Social Attention and the role of gaze, with Prof. Juan Lupiáñez Castillo and Prof. Andrea Marotta

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rرارroca.com>

[Rafael_Roman-Caballero](https://orcid.org/0000-0003-0943-6217)

[0000-0003-0943-6217](https://orcid.org/0000-0003-0943-6217)

[@rرارroca](https://twitter.com/rرارroca)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rرارroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



Teaching

- **Psychology of Memory and Attention. Bachelor's Degree in Psychology.**
Open University of Catalonia. 2023–2024 
- **Introduction to Psychology. Bachelor's Degree in Psychology.**
University of Granada. 2022–2023 
- **Human Learning and Thinking. Bachelor's Degree in Psychology.**
University of Granada. 2021–2022 
- **Psychology of Perception and Attention. Bachelor's Degree of Psychology.**
University of Granada. 2019–2020 and 2020–2021 






Supervision

- **Supervision of one Master thesis**
University of Granada. 2023–2024 
- **Supervision of one Bachelor theses**
McMaster University. 2023–2024 
- **Supervision of two laboratory project**
McMaster University. 2023–2024 
- **Supervision of six Bachelor theses**
University of Granada. 2020–2023 





Editing and Reviewing

- **Intern Junior Editor of *Journal of Experimental Psychology: Human Perception and Performance*** 
Since 2024
- **Associate Editor of *Psicológica Journal*** 
Since 2023
- **Associate Editor of *Frontiers in Psychology*** 
Since 2022
- **Reviewer of articles in *Current Psychology, Psychological Bulletin, Developmental Science, Neuroscience and Biobehavioral Reviews, Attention, Perception, & Psychophysics, PLOS One, and Frontiers in Psychology***



Clinical

- **Practices in clinical neuropsychology**
AGREDACE (Granada, Spain) 
300 hours
- **Practices in clinical neuropsychology**
Neurocenter (Granada, Spain) 
180 hours

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

 <https://rrarroca.com>

 [Rafael_Roman-Caballero](#)

 [0000-0003-0943-6217](#)

 [@rrarroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



AWARDS, PROJECTS & GRANTS

- **Marie Skłodowska-Curie Global Postdoctoral Fellowship**
European Union
252,724.32€
- **Research and Social action grants 2024**
Spanish Association of Psychology of Music and Musical Performance (AEPMIN)
1000€
- **Researcher of the Research Project 'Timing in implicit and explicit contexts: behavioral and electroencephalographic evidence'**
Spanish Ministry of Science and Innovation
Code PID2021-128696NA-I00
- **Award to the best scientific publication of 2021: "Psicológica" award modality**
Spanish Society of Experimental Psychology (SEPEX)
- **First prize in dissemination in medicine and health**
Lilly Foundation – The Conversation
- **Award in dissemination #HiloTesis**
University of Granada, Spain
- **Researcher of the Research Project 'Neuromodulation of vigilance by transcranial electrical stimulation: application in attentional deficits'**
Junta de Andalucía
Code B-CTS-132-UGR20
- **Researcher of the Research Project 'Effects of musical and physical exercise training as factors in the development of executive functions and protection against their deterioration with age'**
Junta de Andalucía
Code P20_00693
- **Researcher of the Research Project 'Theoretical, behavioral, and functional analysis of executive and activation vigilance and its implementation in neural networks'**
Spanish Ministry of Science and Innovation
Code PID2020-114790GB-I00
- **Award for the best oral communication at III International Congress of Psychobiology (presented by Elisa Martín-Arévalo)**
- **University award for the best academic score of the Psychology promotion**
Degree in Psychology, University of Granada, Spain
- **Best poster communication in the 12th RECA (Scientific Meeting on Attention 12)**
- **Grant for the promotion of scientific, technological and innovation culture (2018)**
Spanish Ministry of Science and Innovation & Spanish Foundation for Science and Technology (FECYT)
Code FCT-18-13760. 4000€
- **Researcher of the Research Project 'Executive and Arousal Vigilance in the context of attentional assessment'**
Spanish Ministry of Economy, Industry and Competitiveness
Code PSI2017-84926-P. 156,816€

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rroca.com>

[Rafael_Roman-Caballero](https://orcid.org/0000-0003-0943-6217)

[0000-0003-0943-6217](https://orcid.org/0000-0003-0943-6217)

[@rroca](https://twitter.com/rroca)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



AWARDS, PROJECTS & GRANTS

- **Grant for the Dissemination of Research work 2019–2020**
Spanish Society of the Experimental Psychology (SEPEX)
300€
- **FPU doctoral grant**
Three-year national grant from the Spanish Ministry of Education, Culture and Sport
To support research and teaching during the PhD
- **Collaboration University grant**
Full-course national grant from the Spanish Ministry of Education, Culture and Sport
To support research during the Master
- **Research initiation grant**
Full-course national grant from the University of Granada
To support research during the Degree

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

 <https://rrarroca.com>

 [Rafael_Roman-Caballero](#)

 [0000-0003-0943-6217](#)

 [@rrarroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain
18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



PUBLICATIONS (17)

Icons: preregistered, open data, open materials and code, open access



Román-Caballero, R., & Mioni, G. (2023). Time-Based and Event-Based Prospective Memory in Mild Cognitive Impairment and Alzheimer's Disease Patients: A Systematic Review and Meta-analysis. *Neuropsychology Review*, 1–24. <https://doi.org/10.1007/s11065-023-09626-y>



Coll-Martín, T., Román-Caballero, R., Martínez-Caballero, M. D. R., Martín-Sánchez, P. D. C., Trujillo, L., Cásedas, L., ... & Lupiáñez, J. (2023). The ANTI-Vea-UGR platform: A free online resource to measure attentional networks (alertness, orienting, and executive control) functioning and executive/arousal vigilance. *Journal of Intelligence*, 11(9), 181. <https://doi.org/10.3390/jintelligence11090181>



Holgado, D., Mesquida, C., & Román-Caballero, R. (2023). Assessing the evidential value of mental fatigue and exercise research. *Sports Medicine*, 53(12), 2293–2307. <https://doi.org/10.1007/s40279-023-01926-w>



Román-Caballero, R., Sanabria, D., & Ciria, L. F. (2023). Let's go beyond "the effect of": reappraising the impact of ordinary activities on cognition. *Psicológica*, 44(1), e15144. <https://doi.org/10.20350/digitalCSIC/15144>



Ciria, L. F., Román-Caballero, R., Vadillo, M. A., Holgado, D., Luque-Casado, A., Perakakis, P., & Sanabria, D. (2023). An umbrella review of randomized control trials on the effects of physical exercise on cognition. *Nature Human Behaviour*. <https://doi.org/10.1038/s41562-023-01554-4>



Chacón-Candia, J. A., Román-Caballero, R., Aranda-Martín, B., Casagrande, M., Lupiáñez, J., & Marotta, A. (2023). Are there quantitative differences between eye-gaze and arrow cues? A meta-analytic answer to the debate and a call for qualitative differences. *Neuroscience & Biobehavioral Reviews*, 144, 104993. <https://doi.org/10.1016/j.neubiorev.2022.104993>



Román-Caballero, R., Martín-Arévalo, E., & Lupiáñez, J. (2023). Changes in response criterion and lapse rate as general mechanisms of vigilance decrement: Commentary on McCarley and Yamani (2021). *Psychological Science*, 34(1), 132–136. <https://doi.org/10.1177/09567976221121342>



Román-Caballero, R., & Lupiáñez, J. (2022). Suggestive but not conclusive: An independent meta-analysis on the auditory benefits of learning to play a musical instrument. Commentary on Neves et al. (2022). *Neuroscience & Biobehavioral Reviews*, 142, 104916. <https://doi.org/10.1016/j.neubiorev.2022.104916>



Román-Caballero, R., Vadillo, M. A., Trainor, L. J., & Lupiáñez, J. (2022). Please don't stop the music: A meta-analysis of the cognitive and academic benefits of instrumental musical training in childhood and adolescence. *Educational Research Review*, 100436. <https://doi.org/10.1016/j.edurev.2022.100436>



Román-Caballero, R., Marotta, A., & Lupiáñez, J. (2021). Target-background segregation in a spatial interference paradigm reveals shared and specific attentional mechanisms triggered by gaze and arrows. *Journal of Experimental Psychology: Human Perception and Performance*, 47(11), 1561–1573. <https://doi.org/10.1037/xhp0000953>

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rroca.com>

[Rafael_Roman-Caballero](https://www.researchgate.net/profile/Rafael-Roman-Caballero)

[0000-0003-0943-6217](https://orcid.org/0000-0003-0943-6217)

[@rroca](https://twitter.com/rroca)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



PUBLICATIONS (17)

Icons: preregistered, open data, open materials and code, open access

- Román-Caballero, R., Marotta, A., & Lupiáñez, J. (2021). Spatial interference triggered by gaze and arrows. The role of target background on spatial interference. *Psicológica*, 42(2), 192–209. <http://doi.org/10.2478/psicolj-2021-0010>
- Mioni, G., Román-Caballero, R., Clerici, J., & Capizzi, M. (2021). Prospective and retrospective timing in mild cognitive impairment and Alzheimer's disease patients: A systematic review and meta-analysis. *Behavioural Brain Research*, 410, 113354. <https://doi.org/10.1016/j.bbr.2021.113354>
- Luna, F. G., Román-Caballero, R., Barttfeld, P., Lupiáñez, J., & Martín-Arévalo, E. (2020). A High-Definition tDCS and EEG study on attention and vigilance: Brain stimulation mitigates the executive but not the arousal vigilance decrement. *Neuropsychologia*, 142, 107447. <https://doi.org/10.1016/j.neuropsychologia.2020.107447>
- Román-Caballero, R., Martín-Arévalo, E., & Lupiáñez, J. (2021). Attentional networks functioning and vigilance in expert musicians and non-musicians. *Psychological Research*, 85, 1121–1135. <https://doi.org/10.1007/s00426-020-01323-2>
- Marotta, A., Lupiáñez, J., Román-Caballero, R., Narganes-Pineda, C., & Martín-Arévalo, E. (2019). Are eyes special? Electrophysiological and behavioural evidence for a dissociation between eye-gaze and arrows attentional mechanisms. *Neuropsychologia*, 129, 146–152. <https://doi.org/10.1016/j.neuropsychologia.2019.03.017>
- Román-Caballero, R., Arnedo, M., Triviño, M., & Lupiáñez, J. (2018). Musical practice as an enhancer of cognitive function in healthy aging-A systematic review and meta-analysis. *PloS One*, 13(11), e0207957. <https://doi.org/10.1371/journal.pone.0207957>
- Marotta, A., Román-Caballero, R., & Lupiáñez, J. (2018). Arrows don't look at you: Qualitatively different attentional mechanisms triggered by gaze and arrows. *Psychonomic Bulletin & Review*, 25, 2254–2259. <https://doi.org/10.3758/s13423-018-1457-2>

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rroca.com>

[Rafael_Roman-Caballero](#)

[0000-0003-0943-6217](#)

[@rroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



CONGRESSES (36)

- Poster 'Do musicians have better short -term memory than nonmusicians? A multi-lab study' by Francesca Talamini et al. (including Rafael Román-Caballero)
[The Neuroscience and the Music VIII](#)
Helsinki, Finland. June 2024
- Poster 'Exploring the Impact of Prematurity on the Perception of Infant-Directed Singing: A Multimodal Analysis of Visual Behaviour and Neural Responses' by Betania Y. Georlette, Mohammadreza Edalati, Rafael Román-Caballero, Laurel J. Trainor, Barbara Tillmann, Fabrice Wallois, and Sahar Moghimi
[The Neuroscience and the Music VIII](#)
Helsinki, Finland. June 2024
- Poster 'Differences in attention and vigilance associated with musical training across the lifespan' by Rafael Román-Caballero, Laura Trujillo, Paulina del Carmen Martín-Sánchez, Elisa Martín-Arévalo, and Juan Lupiáñez
[The Neuroscience and the Music VIII](#)
Helsinki, Finland. June 2024
- Oral communication 'The ANTI-Vea-UGR platform: A free online resource to measure attentional networks (alertness, orienting, and executive control) and executive and arousal vigilance' by Tao Coll-Martín, Rafael Román-Caballero, María del Rocío Martínez-Caballero, Paulina del Carmen Martín-Sánchez, Laura Trujillo, Luis Cásedas, M. Concepción Castellanos, Klara Hemmerich, Greta Manini, María Julieta Aguirre, Fabiano Botta, Andrea Marotta, Elisa Martín-Arévalo, Fernando G. Luna, and Juan Lupiáñez
[9th International Congress of Clinical and Health Psychology in Children and Adolescents](#)
Valencia, Spain. November 2023
- Poster 'Influence of rhythmic contexts on perceived event duration' by Rafael Román-Caballero, Paulina del Carmen Martín-Sánchez, Juan Lupiáñez, and Mariagrazia Capizzi
[3rd Conference of the Timing Research Forum \(TRF3\)](#)
Lisbon, Portugal. October 2023
- Poster 'Peripheral cueing and alertness modulation over spatial interference: Shared and specific attentional mechanisms triggered by gaze and arrows' by Renato Ponce, Rafael Román-Caballero, María Casagrande, Andrea Marotta, and Juan Lupiáñez
[23rd Conference of the European Society for Cognitive Psychology](#)
Porto, Portugal. September 2023
- Poster 'Science communication and outreach at CIMCYC' by Giuseppe Benigno, Rocío Vizcaíno, Joaquín Alcañiz-Colomer, Cristina Gómez, Conchi Castellanos, Rafael Román-Caballero, Charo Rueda, Luis Ciria, Rocío Martínez, Greta Manini, and María Jesús Maraver
[CIMCYC 10th Anniversary Research Conference](#)
University of Granada, Spain. May 2023
- Poster 'Influence of rhythmic contexts on perceived event duration' by Paulina del Carmen Martín-Sánchez, Rafael Román-Caballero, Juan Lupiáñez, and Mariagrazia Capizzi
[CIMCYC 10th Anniversary Research Conference](#)
University of Granada, Spain. May 2023

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada



<https://rrarroca.com>



[Rafael_Roman-Caballero](#)



[0000-0003-0943-6217](#)



[@rrarroca](#)

PERSONAL DETAILS



Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6



Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



CONGRESSES (36)

- **Invited speaker with the talk 'Musical training as a cognitive enhancer: Toward a mechanism of neurocognitive changes'** by Rafael Román-Caballero
Workshop on Motivation and Cognitive Effort: New Research Directions
Granada, Spain. March 2023
- **Oral communication 'Influence of rhythm on attention: behavioral and pupillometric evidence of facilitation but not synchronization'** by Rafael Román-Caballero, Elisa Martín-Arévalo, and Juan Lupiáñez
13th RECA (Scientific Meeting on Attention 13)
Granada, Spain. October 2022
- **Poster 'Rhythm and foreperiod effect: Behavioral and eye-tracking evidence for rhythmic facilitation but not for entrainment'** by Rafael Román-Caballero, Elisa Martín-Arévalo, Laurel Trainor, and Juan Lupiáñez
22nd Conference of the ESCoP
Lille, France. August 2022
- **Poster 'Modulators of the decrease in vigilance: intervention, individual differences and methodological considerations'** by Klara Hemmerich, Luis Cásedas, Rafael Román-Caballero, Tao Coll-Martín, Fernando G. Luna, Elisa Martín-Arévalo, and Juan Lupiáñez
5th CIMCYC Research Conference
University of Granada, Spain. May 2022
- **Oral communication 'The benefits of musical training across the lifespan: meta-analytic evidence of causality and selection bias'** by Rafael Román-Caballero, Miguel A. Vadillo, Mónica Triviño, Elisa Martín-Arévalo, Laurel Trainor, and Juan Lupiáñez
SEPEX-APPE meeting
University of Algarve, Portugal. May 2022
- **Oral communication 'Are we ready to prescribe physical exercise to boost brain and cognitive functioning?'** by Daniel Sanabria, Luis F. Ciria, Rafael Román-Caballero, Darías Holgado, Miguel Á. Vadillo, Antonio Luque-Casado, and Pandelis Perakakis
SEPEX-APPE meeting
University of Algarve, Portugal. May 2022
- **Poster 'Influence of a rhythmic context over the foreperiod effect: implications about the maintenance and transfer of rhythmic entrainment'** by Rafael Román-Caballero, Elisa Martín-Arévalo, Laurel Trainor, and Juan Lupiáñez
SEPEX-APPE meeting
University of Algarve, Portugal. May 2022
- **Poster 'Eye-gaze vs arrows as spatial cues: a meta-analytical response'** by Jeanette Alicia Chacón-Candia, Rafael Román-Caballero, Belén Aranda-Martín, Juan Lupiáñez, Maria Casagrande, and Andrea Marotta
SEPEX-APPE meeting
University of Algarve, Portugal. May 2022
- **Symposium session 'psychometric-curve analysis of the executive vigilance decrement: a three-mechanism account'** by Rafael Román-Caballero, Elisa Martín-Arévalo, and Juan Lupiáñez
SEPEX-APPE meeting
University of Algarve, Portugal. May 2022

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada



<https://rrarroca.com>



[Rafael_Roman-Caballero](#)



[0000-0003-0943-6217](#)



[@rrarroca](#)

PERSONAL DETAILS



Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6



Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



CONGRESSES (36)

- Symposium session 'Modulations of sleep deprivation and motivation on Executive / Arousal vigilance and executive control: An on-line sleep deprivation study with the ANTI-Vea task' by Juan Lupiáñez, Conchi Castellanos, Fernando G. Luna, Elisa Martín- Arévalo, Rafael Román-Caballero, Klara Hemmerich, Tao Coll-Martín, Andrea Marotta, Diana Martella, and Fabiano Botta
[SEPEX-APPE meeting](#)
University of Algarve, Portugal. May 2022
- Poster 'Influence of a rhythmic context on the foreperiod effect: Behavioral and eye-tracking evidence for rhythmic facilitation but not for entrainment' by Rafael Román-Caballero, Elisa Martín-Arévalo, Laurel Trainor, and Juan Lupiáñez
[17th Annual NeuroMusic Conference](#)
McMaster University, Hamilton, Canada. November 2021
- Poster 'No quantitative differences between gaze and arrow cueing: A meta-analytic answer to the debate' by Jeanette Chacón-Candia, Rafael Román-Caballero, Juan Lupiáñez, Maria Casagrande, and Andrea Marotta
[Virtual Psychonomic 2020 Annual Meeting](#)
November 2021
- Oral communication 'The cognitive benefits of musical training: from the effect in the lab to its practical implications' by Rafael Román-Caballero, Elisa Martín-Arévalo, and Juan Lupiáñez
[I Inter-University Meeting for Psychology Doctoral Students](#)
Spain. July 2021
- Oral communication 'Differences in attention and vigilance associated with musical training' by Rafael Román-Caballero, Elisa Martín-Arévalo, and Juan Lupiáñez
[Virtual SEPEX 2021](#)
Spain. April 2021
- Poster 'The cognitive and academic benefits of learning to play a musical instrument. Meta-analytic evidence of causality and self-selection' by Rafael Román-Caballero, Miguel A. Vadillo, Laurel Trainor, and Juan Lupiáñez
[I Annual Congress of Doctoral Students](#)
University Miguel Hernández, Elche, Spain. February 2021
- Poster 'Common and dissociable attentional mechanisms triggered by gaze and arrows. Evidence from a spatial interference paradigm' by Rafael Román-Caballero, Andrea Marotta, and Juan Lupiáñez
[Virtual Psychonomic 2020 Annual Meeting](#)
November 2020
- Poster 'Please don't stop the music: A meta-analytic review of the benefits of musical training across the lifespan' by Rafael Román-Caballero, Miguel A. Vadillo, Laurel Trainor, and Juan Lupiáñez
[15th Annual NeuroMusic Conference](#)
McMaster University, Hamilton, Canada. November 2019

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada



<https://rarroca.com>



[Rafael_Roman-Caballero](#)



[0000-0003-0943-6217](#)



[@rarroca](#)

PERSONAL DETAILS



Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6



Email address

rarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



CONGRESSES (36)

- Poster 'Specific attentional improvements associated with musical training' by Rafael Román-Caballero, Elisa Martín-Arévalo and Juan Lupiáñez
[12th RECA \(Scientific Meeting on Attention 12\)](#)
Almería, Spain. October 2019
- Oral communication 'Please don't stop the music: A meta-analysis of the benefits of early musical practice on academic achievement and cognition' by Rafael Román-Caballero, Miguel A. Vadillo and Juan Lupiáñez
[21st Conference of the European Society for Cognitive Psychology](#)
Tenerife, Spain. September 2019
- Poster 'The impact of musical practice on attentional networks and vigilance' by Rafael Román-Caballero, Elisa Martín-Arévalo and Juan Lupiáñez
[21st Conference of the European Society for Cognitive Psychology](#)
Tenerife, Spain. September 2019
- Oral communication 'Brain stimulation mitigates the vigilance decrement: A tDCS and EEG study' by Elisa Martín-Arévalo, Fernando G. Luna, Rafael Román-Caballero, Pablo Barttfeld and Juan Lupiáñez
[III International Congress of Psychobiology](#)
Granada, Spain. May 2019
- Poster 'Social attention: Attentional mechanisms associated with social and non-social signals' by Belén Aranda-Martín, Jeanette A. Chacón-Candia, Klara Hemmerich, Cristina Narganes-Pineda, Rafael Román-Caballero, Jorge Torres-Marín, Nines Ballesteros-Duperón, Ana B. Chica, Andrea Marotta, and Juan Lupiáñez
[3rd CIMCYC Research Conference](#)
University of Granada, Spain. May 2019
- Poster 'Quantifying the attentional processes: ANTI-Vea task' by Luis Cásedas, Tao Coll-Martín, Tania Martínez-Montero, Fernando G. Luna, Rafael Román-Caballero, Elisa Martín-Arévalo, Carlos Sanchis, Alberto Acosta, and Juan Lupiáñez
[3rd CIMCYC Research Conference](#)
University of Granada, Spain. May 2019
- Oral communication '*The effects of lifelong musical practice on cognitive function in healthy aging: A systematic review and meta-analysis*' by Rafael Román-Caballero, Marisa Arnedo Mónica Triviño and Juan Lupiáñez
[First Joint Congress of the SEPEX, SEPNECA and AIP experimental](#)
Madrid, Spain. July 2018
- Oral communication 'Executive and Arousal Vigilance: A tDCS study' by Fernando G. Luna, Juan Lupiáñez, Rafael Román-Caballero, Pablo Barttfeld and Elisa Martín-Arévalo
[First Joint Congress of the SEPEX, SEPNECA and AIP experimental](#)
Madrid, Spain. July 2018
- Poster 'Are eyes special? Electrophysiological and behavioral evidence for dissociation between gaze and arrow attentional mechanisms' by Andrea Marotta, Rafael Román-Caballero, Cristina Narganes, Juan Lupiáñez and Elisa Martín-Arévalo
[Interactive Eye Gaze](#)
London, UK. February 2018

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada

<https://rroca.com>

[Rafael_Roman-Caballero](#)

[0000-0003-0943-6217](#)

[@rroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



CONGRESSES (36)

- **Oral communication 'Arrows don't look at you: qualitatively different attentional mechanisms induced by Gaze and Arrows cues'** by Rafael Román-Caballero, Andrea Marotta, Elisa Martín-Arévalo and Juan Lupiáñez
11th RECA (Scientific Meeting on Attention 11)
Baeza, Spain. September 2017
- **Poster 'Qualitatively different attentional mechanisms induced by Gaze and Arrows cues: Evidence from a spatial Stroop paradigm'** by Rafael Román-Caballero, Andrea Marotta and Juan Lupiáñez
18th General Meeting of the European Association of Social Psychology
Granada, Spain. July 2017

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada

<https://rrarroca.com>

[Rafael_Roman-Caballero](#)

[0000-0003-0943-6217](#)

[@rrarroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain
18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



EVALUATION (12)

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada

<https://rrarroca.com>

[Rafael_Roman-Caballero](#)

[0000-0003-0943-6217](#)

[@rrarroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English

2023

Member of the external evaluation committee of the Degree in Speech Therapy of the University of Cantabria
National Agency for Quality Assessment and Accreditation of Spain (ANECA)

2022

Member of the external evaluation committee of the Degree in Speech Therapy of the University of Castilla-La Mancha
National Agency for Quality Assessment and Accreditation of Spain (ANECA)

Member of the external evaluation committee of the Degree in Occupational Therapy of the University of Castilla-La Mancha
National Agency for Quality Assessment and Accreditation of Spain (ANECA)

Member of the external evaluation committee of the Interuniversity PhD Program in Psychology of Communication and Change of the University of Barcelona and the Autonomous University of Barcelona
Agency for the Quality of the University System of Catalonia (AQU Catalonia)

Member of the external evaluation committee of the PhD Program in Health and Sports Psychology of the Autonomous University of Barcelona
Agency for the Quality of the University System of Catalonia (AQU Catalonia)

Member of the external evaluation committee of the PhD Program in Clinical and Health Psychology of the University of Barcelona
Agency for the Quality of the University System of Catalonia (AQU Catalonia)

Member of the external evaluation committee of the Interuniversity PhD Program in Educational Psychology of the University of Barcelona, Autonomous University of Barcelona, University of Girona, and Ramon Llull University
Agency for the Quality of the University System of Catalonia (AQU Catalonia)

Member of the external evaluation committee of the PhD Program in Social and Organizational Psychology of the University of Barcelona
Agency for the Quality of the University System of Catalonia (AQU Catalonia)

2021

Member of the external evaluation committee of the Master in General Health Psychologist of the University of Oviedo
National Agency for Quality Assessment and Accreditation of Spain (ANECA)

Member of the external evaluation committee of the Master in General Health Psychologist of the University of Murcia
National Agency for Quality Assessment and Accreditation of Spain (ANECA)



RAFAEL ROMÁN-CABALLERO



EVALUATION (12)

2021

Member of the external evaluation committee of the Degree in Psychology of the University of Oviedo
National Agency for Quality Assessment and Accreditation of Spain (ANECA)

2017

Member of the external evaluation committee of the Master in Brain and Cognition of the Pompeu Fabra University
Agency for the Quality of the University System of Catalonia (AQU Catalonia)

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rrarroca.com>

[Rafael_Roman-Caballero](#)

[0000-0003-0943-6217](#)

[@rrarroca](#)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain
18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



SCIENTIFIC OUTREACH

- **First prize in dissemination in medicine and health**
Lilly Foundation – The Conversation
- **Award in dissemination #HiloTesis**
University of Granada, Spain
- **Head of the ‘PsychoBeers’ project of neuroscience talks**
<https://www.youtube.com/channel/UCQm75xdU0SmlqzL29tOoJYw>
- **Grant for the promotion of scientific, technological and innovation culture (2018)**
Spanish Ministry of Science and Innovation & Spanish Foundation for Science and Technology (FECYT)
Code FCT-18-13760
- **Finalist in the 3 Minute Thesis Competition (2020)**
University of Granada
- **Articles**

¿Cómo cambia nuestro cerebro la práctica musical?

<https://theconversation.com/como-cambia-nuestro-cerebro-la-practica-musical-181031>

¿Por qué los monos no cantan flamenco? <https://theconversation.com/por-que-los-monos-no-cantan-flamenco-166983>

¿Cuáles son los beneficios cerebrales de tocar un instrumento?

<https://theconversation.com/cuales-son-los-beneficios-cerebrales-de-tocar-un-instrumento-163225>

¿La pandemia ha cambiado nuestro espacio personal para siempre?

<https://theconversation.com/la-pandemia-ha-cambiado-nuestro-espacio-personal-para-siempre-155386>

¿La pandemia ha cambiado nuestro espacio personal para siempre?

<https://theconversation.com/la-pandemia-ha-cambiado-nuestro-espacio-personal-para-siempre-155386>

El tiempo en pandemia, ¿pasa más lento o más rápido?

<https://theconversation.com/el-tiempo-en-pandemia-pasa-mas-lento-o-mas-rapido-153986>

Román-Caballero, R., Martín-Arévalo, E., y Lupiáñez, J. (2020). «Rockin’ in Rhythm»: la atención en contextos rítmicos. *Ciencia Cognitiva*, 14(2), 34–36.

<http://www.cienciacognitiva.org/?p=1960>

Román-Caballero, R., y Lupiáñez, J. (2019). El impacto cognitivo de la práctica musical: Explorando las ventajas de un mundo musicalmente activo. *Ciencia Cognitiva*, 13(1), 21–23. <http://www.cienciacognitiva.org/?p=1808>

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rroca.com>

[Rafael_Roman-Caballero](https://www.researchgate.net/profile/Rafael-Roman-Caballero)

[0000-0003-0943-6217](https://orcid.org/0000-0003-0943-6217)

[@rroca](https://twitter.com/rroca)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



COURSES (~660 hours)

Scientific communication (40 hours)

- **Course on scientific communication and dissemination**
University of Granada
30 hours. January–February 2020
- **Course on scientific dissemination**
University of Granada
10 hours. December 2018

Analysis and register techniques (225 hours)

- **Organizer of the course LimeSurvey and OpenSesame for researcher in the CIMCYC**
CIMCYC. University of Granada
9 hours. March 2021
- **Course on multilevel analyses and structural equation modelling**
University of Granada
20 hours. March 2021
- **International Doctoral Summer School. Multivariate pattern analyses of electroencephalography data: theory and practice.**
University of Granada
32 hours. November 2020
- **Course on advanced experimental designs and analyses**
University of Granada
20 hours. January 2020
- **Course on systematic review and meta-analysis**
University of Granada
20 hours. April–May 2019
- **Course on advanced analysis Fieldtrip**
University of Granada
20 hours. March 2019
- **Course on neuropsychological assessment through tractography**
University of Córdoba
75 hours. January–February 2019
- **Course on LaTeX**
University of Granada
20 hours. January 2019
- **Course on MatLab**
University of Granada
9 hours. March 2018

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)–LIVELab

McMaster University, Canada

<https://rrarroca.com>

[Rafael_Roman-Caballero](https://www.researchgate.net/profile/Rafael-Roman-Caballero)

[0000-0003-0943-6217](tel:0000-0003-0943-6217)

[@rrarroca](https://twitter.com/rrarroca)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English



RAFAEL ROMÁN-CABALLERO



COURSES (~660 hours)

Psychology & Neuroscience (190 hours)

- **Computational modelling of behavioral data**
University of Granada
8 hours. June 2022
- **Course on single-case analyses**
University of Granada
2 hours. April 2021
- **Course on neurosexism**
University of Granada
15 hours. April 2021
- **Course on primatology**
Darwin Eventur Association
25 hours. March 2021
- **Course on gender equality**
University of Granada
60 hours. From November 2019 to January 2020
- **Course on neuropsychology of dementias**
University of Granada
4 hours. March 2018
- **Course on neuropsychological rehabilitation**
University of Granada
4 hours. March 2018
- **Course on dyslexia**
University of Granada
4 hours. December 2017
- **Course on neuroscience and early care**
University of Granada
4 hours. November 2017
- **The Visceral Mind Summer School. Neuroanatomy and neuroscience**
Bangor University, UK
64 hours. September 2017

Music (35 hours)

- **Course on musical cultures and ethnomusicology**
Conservatory of Córdoba 'Musician Ziryab'
15 hours. March 2013
- **Course on baroque orchestra**
Conservatory of Córdoba 'Musician Ziryab'
20 hours. March 2008

PhD

Department of Experimental Psychology

Mind, Brain and Behavior Research Center (CIMCYC)

University of Granada, Spain

Department of Psychology, Neuroscience and Behaviour

McMaster Institute for Music & the Mind (MIMM)-LIVELab

McMaster University, Canada

<https://rrarroca.com>

[Rafael.Roman-Caballero](mailto:Rafael.Roman-Caballero@ugr.es)

[0000-0003-0943-6217](tel:0000-0003-0943-6217)

[@rrarroca](https://twitter.com/rrarroca)

PERSONAL DETAILS

Address

Campus Universitario de Cartuja, Granada, Spain 18011

McMaster University,
King St W, Hamilton,
Canada
L8S 4L6

Email address

rrarroca@ugr.es
romancar@mcmaster.ca

LANGUAGES

Spanish

English