# Jose López Santacruz

### CURRICULUM VITAE

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Nationality: Spanish

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### EXPERIENCE

### PhD researcher at UMCG, The Netherlands

Oct 2017 to Jul 2022

Marie Skłodowska-Curie Actions fellowship PhD: Personalized hearing aid amplification to ameliorate tinnitus, ESIT project.

- Topics/tasks: Tinnitus, hearing loss, hearing aids, clinical trials, psychoacoustic experiments.
- Supervisors: Pr. Pim van Dijk and Dr. Emile de Kleine

### MIR Researcher at University of Málaga, Spain

Feb 2015 to Oct 2017

Music Information Retrieval at the Department of Communications Engineering of the ETSIT.

- Topics: Processing of the singing voice, pitch shifting, EEG analysis on music perception.
- Supervisors: Pr. Lorenzo J. Tardón and Pr. Isabel Barbancho

#### Research collaboration at University of Aarhus, Denmark

Feb to Apr 2017

Visitor researcher, Center For Music In The Brain.

- Topics: Musical and audio feature extraction, music perception in cochlear implant users and musically trained listeners, EEG/MEG analysis.
- Supervisor: Pr. Elvira Brattico

# Additional Experience

Supervisor of Master's student

Mar 2021 to Jun 2022

Project: Auditory Brainstem Response in Tinnitus and Hyperacusis

Department of Otorhinolaryngology, UMCG

Lecturer

Session - Music Acoustics: Sound Synthesis Engineering Acousics MSc, University of Málaga

Co-teacher

Workshop - URobot: learn to program your robot Workshop - FECYT Summer Science Campus 2015

October 2015 Summer 2015

June 2017

Division of Mechatronics, University of Málaga

TECHNICAL SKILLS

Compensences

Programming languages: R, Matlab, Python, C++, SQL, HTML, CSS.

**Technical skills:** Signal processing, acoustics, statistical analysis, machine learning, data visualization.

**Soft skills:** Public speaking, written and oral communication, scientific writing, problem-solving, critical thinking, teamwork.

### EDUCATION

B.Eng. + M.Sc. (pre-Bologna degree) in Telecommunications Engineering at **University** of Málaga, Spain

Cum Laude Master's thesis:

Apr 2014

Single Carrier Frequency Division Multiple Access (SC-FDMA) transmitter and receiver for LTE systems, using VHDL for FPGA implementation.

Relevant Courses Research Data Management awareness workshop

BCN Advanced (non)linear regression techniques in R

R Statistics Training Workshop Advanced

Ethics of Research and Scientific Integrity for Researchers

Introduction to Good Clinical Practice (GCP)

BCN Management Competences

Feb 2021

Jun to Jul 2020

Oct 2019

Feb to Apr 2019

Oct 2018

Dec 2017, Oct 2018

LANGUAGES

- English Full professional proficiency
- Dutch A2/B1 level
- Spanish Native

SCIENTIFIC SERVICE Reviewer, Progress in Brain Research
 Local Committee, FMA2017
 Reviewer, DAFX2017
 Local Committee, ISMIR2015
 Apr 2020
 Jun 2017
 May 2017
 Oct 2015

Internships

Clinical Internship in Salamanca, Spain

Jan 2017

Visit to Hospital Universitario de Salamanca as part of the PhD program.

Visit to the Instituto de Neurociencias de Castilla y León.

Industrial internship in Erlangen, Germany

 $\mathrm{Feb}\ 2018$ 

Visit to the hearing aids' company Sivantos as part of the PhD program.

Grants

Research grant of the University of Málaga

Feb 2017

E-mail: e.de.kleine@umcg.nl

International fellowship at the Center for Music in the Brain, Aarhus University, Denmark.

Hobbies and Interests

- Singing, music production, composition, guitar playing
- Podcast production and co-hosting
- Bouldering/Climbing
- Open mic/stand-up comedy

References

Pr. dr. dr. Pim van Dijk

Professor, Clinical Physicist-Audiologist Phone: +31 503612550
Department of Otorrinolaringology E-mail: p.van.dijk@umcg.nl

UMCG

Hanzeplein 1, 9700RB Groningen

The Netherlands

Dr. ir. Emile de Kleine

Clinical Physicist-Audiologist

Department of Otorrinolaringology

UMCG

Hanzeplein 1, 9700RB Groningen

The Netherlands

REFEREED JOURNAL PUBLICATIONS

- 1. Haumann, N.T., Lumaca, M., Kliuchko, M., Santacruz, J.L., Vuust, P. and Brattico, E., 2021. Extracting human cortical responses to sound onsets and acoustic feature changes in real music, and their relation to event rate. *Brain Research*, 1754, p.147248. https://doi.org/10.1016/j.brainres.2020.147248
- 2. Santacruz, J. L., Arnold, A., Tuinstra J., Stewart R.E., van Dijk, P., 2021. Validation of a Dutch version of the Tinnitus Functional Index in a tertiary referral tinnitus clinic. *Heliyon*. https://doi.org/10.1016/j.heliyon.2021.e07733
- 3. Santacruz, J. L., de Kleine, E., van Dijk, P., 2021. Investigating the variability of Minimum Masking Levels for tinnitus subtyping. *Progress in brain research*. https://doi.org/10.1016/bs.pbr.2021.04.011
- Biswas, R., Schiller, A.,... Santacruz, J. L., Schoisswohl, S., 2021. Doctoral Studies as part of an Innovative Training Network (ITN): Early Stage Researcher (ESR) experiences. Open Research Europe, 1(34), p.34. https://doi.org/10.12688/openreseurope.13094.2
- Simoes, J.P., Daoud, E.,...Santacruz, J.L., Joergensen, M., 2021. Multidisciplinary Tinnitus Research: Challenges and Future Directions from the Perspective of Early Stage Researchers. Frontiers in Aging Neuroscience, 13, p.179. https://doi.org/10.3389/fnagi.2021.647285
- Genitsaridi, E., Partyka, M.,... Santacruz, J.L., Schoisswohl, S., Riha, C. and Lourenco, M., 2019. Standardised profiling for tinnitus research: The European School for Interdisciplinary Tinnitus Research Screening Questionnaire (ESIT-SQ). Hearing research, 377, pp.353-359. https://doi.org/10.1016/j.heares.201 9.02.017
- Jose L. Santacruz, Lorenzo Tardón, Isabel Barbancho, Ana M Barbancho.
   "Spectral Envelope Transformation in Singing Voice for Advanced Pitch Shifting." *Applied Acoustics MDPI*, 6(11), 368, 2016.
- 8. **Jose L. Santacruz**, Lorenzo Tardón, Isabel Barbancho, Ana M Barbancho. "VOICE2TUBA: transforming singing voice into a musical instrument." *Multimedia Tools and Applications, Springer*, 76(7):9855–9875, 2017.

# Conferences

- 1. "Subtyping Tinnitus by the Relation between Minimum Masking Levels and Hearing Thresholds", **Santacruz**, **J. L.**, de Kleine, E., van Dijk, P., poster presentation; ARO 2021.
- 2. "Minimum masking levels and hearing thresholds in patients with tinnitus", **Santacruz**, **J. L.**, de Kleine, E., van Dijk, P., poster presentation; BTA 2018.
- 3. "Tinnitus pitch matching by amplitude modulated sounds", Santacruz, J. L., de Kleine, E., van Dijk, P., poster presentation; TRI 2018.
- "Source separation by score synthesis in Spanish folk music", Sergio P. Paqué, Marcelo Caetano, Jose L. Santacruz, Lorenzo Tardón and Isabel Barbancho, oral presentation. FMA2017.
- "Modeling spectral changes in singing voice for pitch modification", Isabel Barbancho, Jose L. Santacruz, Lorenzo Tardón and Ana M. Barbancho, latebreaking demo; ISMIR2016.