

# David Poirier-Quinot

PhD Computer Science, Acoustics, VR. Telecom Engineer.

## WORK EXPERIENCES

MAI 2017 – NOVEMBER 2018

**IJLRA – CNRS – Sorbonne Université**

*Postdoctoral Researcher*

Binaural perception in VR applications (partnership with Oculus Research): impact of individualized binaural rendering on performance and immersion, HRTF learning.

MAI 2016 – MAI 2017

**IRCAM**

*Postdoctoral Researcher*

R&D for web-based audio applications. Development of WebAudio spatialization libraries (binaural, ambisonic, etc.) for virtual and augmented reality. Design of a framework for real-time auralization in architectural acoustics and virtual reality ([evertims.github.io/website](http://evertims.github.io/website)).

NOVEMBER 2015 – APRIL 2016

**Imperial College of London**

*Postdoctoral Researcher*

Study of the impact of room acoustics on 3D audio perception. Perceptive comparison of reverberation techniques for 3D audio. Hearing loss simulation.

MARCH 2015 – NOVEMBER 2015

**LIMSI – CNRS**

*Postdoctoral Researcher*

Room acoustic simulation and 3D sound design for virtual reality.

SEPTEMBER 2011 – JULY 2012

**LIMSI – CNRS**

*Research Engineer*

Implementation and deployment of sound spatialization systems (Ambisonic, Binaural, WFS). Development of BlenderVR: stereoscopic rendering in VR environments ([blendervr.limsi.fr](http://blendervr.limsi.fr)).

FEBRUARY 2011 – AUGUST 2011

**Airbus Defense & Space**

*Final year project*

Market survey on Location Based Services for GSM, UMTS and LTE standards. Wireshark based monitoring of GSM data flows.

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<https://pyrapple.github.io>



## SKILLS

|             |  |
|-------------|--|
| ENG. & FR.  | Fluent written / oral.   |
| SPANISH     | Basic.   |
| DEVELOPMENT | Python, Java, C, C++, C#, Javascript, Lisp, Objective-C, Matlab. Blender, Unity3D. MaxMSP, Pd, CATT-A, Gimp. |
| OTHERS      | Intellectual property. Scientific method. Functional analysis.   |

## EDUCATION

FEBRUARY 2012 – MARCH 2015

**Airbus Defense & Space, LIMSI – CNRS**

*PhD in Computer Science*

“Design of a radio Direction Finder for search and rescue operations”. Interfacing of propagation models and virtual environments for ecological assessment of DF designs performance. *Signal Processing, DOA estimation, RF, Acoustics, Ergonomics, VR, Sound Design.*

2008 – 2011 **Master Degree, Telecom Engineer**  
ENSEA

*Major in Computer Network and Telecommunications.*  
*Cergy – France*

2006 – 2008 **Preparatory classe**  
ENCPB  
*National school of Physics, Chemistry and Biology.*  
*Paris – France*

2003 – 2006 **Scientific A-level**  
DESCARTES HIGH SCHOOL  
*Montigny le Bx – France*

## SELECTED PUBLICATIONS

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D. Poirier-Quinot, G. Parseihian, B. F. G. Katz, “Comparative study on the effect of Parameter Mapping Sonification on perceived instabilities, efficiency, and accuracy in real-time interactive exploration of noisy data streams”, *Displays*, Elsevier, 2017, 47, pp.2–11. doi:10.1016/j.displa.2016.05.001.

B. Katz, B. Postma, D. Poirier-Quinot, J. Meyer, “Experience with a virtual reality auralization of Notre-Dame Cathedral” *Acoustical Society of America*, Jun 2017, Boston, United States. 141 (5), pp.3454–3454, 2017, doi:10.1121/1.4987161.

D. Poirier-Quinot, B. Katz, M. Noisternig “EVERTims: Open source framework for real-time auralization in architectural acoustics and virtual reality”, *20<sup>th</sup> International Conference on Digital Audio Effects (DAFx-17)*, Sep 2017, Edinburgh, United Kingdom.

D. Thery, D. Poirier-Quinot, B. Postma, B. F. G. Katz, J. Barbic, M. D’Cruz, M. Latoschik, M. Slater, and P. Bourdot “Impact of the Visual Rendering System on Subjective Auralization Assessment in VR”, *Virtual Reality and Augmented Reality*, Springer, pp.105–118, 2017, Lecture Notes in Computer Science, doi:10.1007/978-3-319-72323-5\_7.

A. Politis, D. Poirier-Quinot “JSAmbisonics: A Web Audio library for interactive spatial sound processing on the web” *Interactive Audio Systems Symposium*, Sep 2016, York, United Kingdom.

See <https://pyrapple.github.io/pages/publications.html> for an exhaustive list of publications.