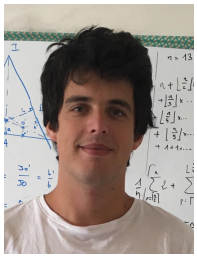

MARTIN AVERSENG

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EDUCATION

CMAP, Ecole Polytechnique, Palaiseau *Sept. 2016 - Dec. 2019*

PhD thesis in applied mathematics:

Efficient methods in acoustic scattering in 2D and 3D

Preconditioning on singular domains and fast convolution. Direction: Pr. François Alouges.

Thesis defended and obtained on october 14th 2019.

Université Pierre et Marie Curie, Paris *Sept. 2015 - July 2016*

Master's degree, Numerical analysis of partial differential equations.

IRCAM, Paris *Sept. 2014 - July 2015*

Master's degree, Acoustics, signal processing, computer science applied to music.

Ecole Polytechnique, Palaiseau *Sept. 2011 - July 2014*

Major in applied mathematics.

Minors in quantum and statistical physics, continuum mechanics

WORK EXPERIENCE

Laboratoire Jacques-Louis Lions, Inria Alpines team, Paris *Jan. 2020 - June 2020*

Postdoc, supervised by Xavier Claeys.

Working on combinations of additive Schwarz and Calderón preconditioners.

Laboratoire des systèmes perceptifs, ENS, Paris *Jan. 2015 - July 2015*

Research internship in behavioral neurosciences. Supervised by Pr. Shihab Shamma

ESI-Group, San Diego *March - July 2013*

Research internship. Supervised by Bryce Gardner.

Modeling of the variance in a transient model of the Statistical Energy Analysis.

PSA Peugeot Citroën, Vélizy-Villacoublay *July - Sept. 2013*

Ergonomy of Human Machine interfaces

Armée française, 8ème RPIMA, Castres *Sept. 2011 - April 2012*

8 month experience in French army, including 4 month at the 8ème RPIMA.

PUBLICATIONS

- Bagur, S., Averseng, M., Elgueda, D., David, S., Fritz, J., Yin, P., Shamma, S., Boubenec, Y., and Ostojic, S.: Go no-go task engagement enhances population representation of the target stimulus in primary auditory cortex. *Nature Comm.* 9(1), 2529 (2018)

- Averseng M.: Fast discrete convolution in R2 with radial kernels using non-uniform fast Fourier transform with nonequispaced frequencies. *Numer. Algor.* (2019)

- Alouges. F., Averseng, M.: New preconditioners for the Laplace and Helmholtz integral equations on open curves. Accepted for publication in *Numerische Mathematik*. Arxiv preprint 1905.13604 (2019)

-Averseng, M.: Pseudo-differential analysis of the weighted layer potentials for the Laplace and Helmholtz integral equations on open curves. Submitted. Arxiv preprint 1905.13602 (2019).

LANGUAGE AND COMPUTER SKILLS

Programming: Matlab and Python.

Languages: Fluent in english and italian, intermediate level in spanish. French native speaker