

CONTACT INFO

142 Rue Fondaudège, Apt CO4 33000 Bordeaux +33 7 69 85 14 34 emile.kadalie@gmail.com

Nationalities: French and South African Age: 27 years old

SKILLS & INTERESTS

MRI programming:

- Siemens IDEA pulse sequence programming
- MR signal simulation such as Sycomore and EPGX

Image reconstruction:

- Gadgetron framework
- BART toolbox

Software skills:

- Matlab, R, Python, C++, Bash
- Machine & Deep Learning using R and Python (Tensorflow, Keras)

Bilingual :

- Fluent in English and French
- Intermediate level in Spanish

Sports : Football, Boxing, Tennis.

Driver's license.

EMILE KADALIE

PhD in Medical Imaging

RESEARCH EXPERIENCE

POSTDOCTORAL RESEARCH at the Centre de Résonance Magnétique des Systèmes Biologiques (CRMSB), Bordeaux, France

JANUARY 2024 - PRESENT

Optimisation of a simultaneous multi parametric 3D MRI quantitative sequence for human brain imaging at 3T and 7T.

PhD at the Centre de Résonance Magnétique des Systèmes Biologiques (CRMSB), Bordeaux, France

NOVEMBER 2020 - DECEMBER 2023

Thesis objective: To develop a rapid and repeatable in-house $3D T_2$ mapping sequence (DESS) on healthy volunteers. This required complete control over the acquisition, reconstruction and mapping pipeline, as well as a respiratory B_0 correction. Different ventures were then explored to extend it into a multiparametric sequence.

INTERNSHIP at SAFRAN Ceramics, Mérignac, France

FEBRUARY - AUGUST 2019

Development of a high-productivity tomography-based nondestructive testing system. The goal was to optimise a prototype 3D tomography imaging system in order to obtain faster scans of composite materials.

EDUCATION & CERTIFICATION

PhD at the University of Bordeaux Health and Life Science Doctoral School, Bordeaux, France

NOVEMBER 2020 - DECEMBER 2023

Masters degree in Applied Mathematics for Signal and Image processing at the University of Bordeaux, Bordeaux, France

SEPTEMBER 2017- SEPTEMBER 2019 Graduated with distinction, Valedictorian.

International Bachelors in Pure Mathematics at the University of Bordeaux, Bordeaux, France

2014 - 2017 Last year abroad at the University of Ottawa as an exchange student. Graduated with distinction.

Cambridge Assessment Examination CPE, Level C2 & TOEFL ITP, Level C1

JUNE 2013 & DECEMBER 2015

REFERENCES

Emeline Ribot, CNRS Researcher at the Centre de Résonance Magnétique des Systèmes Biologiques (PhD Supervisor). Email: emeline.ribot@rmsb.u-bordeaux.fr

Nadège Corbin, CNRS Research

Engineer at the Centre de Résonance Magnétique des Systèmes Biologiques. Email: nadege.corbin@rmsb.u-bordeaux.fr

Thomas Philippe, Non destructive

testing Engineer at SAFRAN Ceramics (Internship supervisor). Email: thomas.philippe@safrangroup.com

Edoardo Provenzi, Professor at the University of Bordeaux (Masters degree supervisor). Email: edoardo.provenzi@math.ubordeaux.fr

TEACHING

Basics of NMR & MRI Tutorials at the Centre de Résonance Magnétique des Systèmes Biologiques (CRMSB), Bordeaux, France

NOVEMBER 2021 & NOVEMBER 2022

Two one-hour tutorials during a week-long course aiming to teach the principles of NMR & MRI to a variety of people working in the field (mainly radiographers).

PUBLICATION

Research article

Rapid whole brain 3D T_2 mapping respiratory-resolved Double-Echo Steady State (DESS) sequence with improved repeatability.

Emile Kadalie, Aurélien J. Trotier, Nadège Corbin, Sylvain Miraux, Emeline J. Ribot. Magnetic Resonance in Medicine. 2023;1-16. <u>https://doi.org/10.1002/mrm.29847</u>

CONFERENCES & PRESENTATIONS

Oral Presentation

Respiration artifact-free 3D DESS T_2 mapping of the human brain.

Emile Kadalie, Aurélien J. Trotier, Nadège Corbin, Sylvain Miraux, Emeline J. Ribot. <u>ISMRM 2022</u>, London, UK.

Posters

Increasing the repeatability of DESS 3D brain T_2 mapping with optimized k-space sampling order.

Emile Kadalie, Aurélien J. Trotier, Nadège Corbin, Sylvain Miraux, Emeline J. Ribot. <u>ISMRM 2023</u>, Toronto, Canada.

Développement d'une cartographie T_2 cérébrale DESS 3D sans artefacts de respiration.

Emile Kadalie, Aurélien J. Trotier, Nadège Corbin, Sylvain Miraux, Emeline J. Ribot. <u>SFRMBM 2023</u>, Paris, France.