Mario Lavanga

TNG - INSTITUT DE NEUROSCIENCES DES SYSTÈMES: Mario Lavanga
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EDUCATION

KU LEUVEN
PhD in Electrical Engineering
Grad. September 2020 | Leuven, Belgium | Phd Graduation Video

POLITECNICO DI MILANO
MS in Biomedical Engineering
Grad. December 2015 | Milan, Italy | Final Grade: 100/100 cum laude

BS in Biomedical Engineering
Grad. December 2015 | Milan, Italy | Final Grade: 100/100 cum laude

ALTA SCUOLA POLITECNICA
Double degree programme with Politecnico di Torino
Grad. December 2015 | Turin, Italy | Final Grade: Excellent

LINKS

Mario Lavanga
@Mario_Lavanga
Mario Lavanga

ACADEMIC COURSES

PHD
Graph Theory
Support Vector Machines
Network Physiology

MASTER OF SCIENCE
Biomedical signal processing Lab
Advance methods for Biomedical Signal Processing
System identification and Data Analysis
Neuroengineering

SKILLS

PROGRAMMING
Matlab • Python • Jupyter • Git • LaTeX • Shell • Slurm • C • R • HTML • Labview

GRAPHICS
Inkscape

LANGUAGES
Italian | Mothertongue • English | Fluent • Dutch | Basic Knowledge • French | Basic Knowledge

ABOUT ME

Strong interest and background in Biomedical Signal Processing and Graph Theory. I have developed a passion for mental health and neurodevelopment. I enjoy programming, especially for data science. Although I am Matlab master, I started migrating to Python for better research reproducibility. I love running and I love travelling in Asia.

RESEARCH

BIOMED GROUP - STADIUS | PhD Fellow
Jan 2016 – Present | Leuven, Belgium
I collaborated with Prof. Sabine Van Huffel and Prof. Gunnar Naulears to develop a Perinatal Stress Calculator. The goal of this research focuses on a data-driven stress quantification in premature babies based on polysomnography data. Project in collaboration with UZ Leuven.

TNG - INS | Postdoctoral researcher
Oct 2020 – Present | Marseille, France
I collaborate with Prof. Viktor Jirsa to investigate ageing in the last period life and simulate the associated functional activity based on anatomical data. The project is part of the Human Brain Project.

EXPERIENCE

KU LEUVEN PhD Fellow at ESAT departement, STADIUS group
January 2016 – January 2017 | Leuven, Belgium

FWO SB PhD Fellow at ESAT departement, STADIUS group
January 2017 – September 2020 | Leuven, Belgium

AIX MARSEILLE UNIVERSITÉ Postdoctoral Researcher at INS
October 2020 – Present | Marseille, France

MAIN PUBLICATIONS

M. Lavanga , B. Bollen, K. Jansen, E. Ortibus, S. Van Huffel, G. Naulaers, A. Caicedo (2020)," The effect of early procedural pain in preterm infants on the maturation of EEG and heart rate variability." Pain . 2020 Oct 26.

M. Lavanga , B. Bollen, K. Jansen, E. Ortibus, S. Van Huffel, G. Naulaers, A. Caicedo (2020),"A bradycardia-based stress calculator for the neonatal intensive care unit: a multisystem approach." Frontiers in Physiology , 1–19, June 2020.

M. Lavanga , L. Smets, B. Bollen, K. Jansen, E. Ortibus, S. Van Huffel, G. Naulaers, A. Caicedo (2020),"A perinatal stress calculator for the neonatal intensive care unit: an unobtrusive approach." Physiol. Meas. , 1–26, June 2020.

M. Lavanga , O. De Wel, A. Caicedo, K. Jansen, A. Dereymaeker, G. Naulaers and S. Van Huffel, "A brain-age model for preterm infants based on functional connectivity", Physiol. Meas. , vol. 39, no. 4, Apr. 2018.

The complete list of publications is here and the Google Scholar account is here

AWARDS

- 2019: Participant of Falling Walls Lab Leuven - 2019
- 2018: Laureate of KU Leuven - LRD Technology Transfer Course for the best exploitation plan of research
- 2016: Recipient of the Strategic Basic Research Fellowship by the Fonds voor Wetenschapelijke Onderzoek (FWO)