

ADEL MALIK ANNABI

PhD in Mathematics
Côte d’Azur University, INRIA, Math & Interactions Laboratory J.A. Dieudonné,
McTAO & GDT Teams.
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RESEARCH INTEREST

Estimation, Nonlinear Observer Design, Optimization, Control and Stabilization, Optimal Control, Neuroscience.

EDUCATION AND PROFESSIONAL EXPERIENCE

PhD thesis in Mathematics

Oct. 2022-2026

Côte d’Azur University, INRIA, Math & Interactions Laboratory J.A. Dieudonné.

Topic: *State and Parameter Estimation of Neural Mass Modes: Control Theoretic Approach*

Supervisors: *Jean-Baptiste Pomét, Dario Prandi, Ludovic Sacchelli*

Master of Mathematics & Applications- Mathematics of Modeling

2019 – 2022

Sorbonne University with l'École Polytechnique and l'École Nationale des Ponts et Chaussées

Research Internship at L2S - CentraleSupélec - Paris-Saclay University

Topic: *Identification of illusory state in the visual cortex*

Supervisors: *Dario Prandi, Jean-Baptiste Pomét, Ludovic Sacchelli*

Bachelor's Degree in Mathematics: Intensive Track

2017 – 2019

Sorbonne University

Preparatory Classes for “Grandes Écoles d'ingénieurs”

2015 – 2017
Algiers, Algeria

TECHNICAL SKILLS

Programming: Python, Julia

Machine Learning & Deep Learning: Coursework in Machine Learning and Deep Learning — NumPy, SciPy, scikit-learn, PyTorch, TensorFlow/Keras

TEACHING EXPERIENCE

Teaching Assistant – Mathematics – 96 hours

Laboratoire Jean Alexandre Dieudonné, Côte d’Azur University

PREPRINTS

Observer design for Lur'e-type systems via injection of a reconstructed nonlinear output (2026)

Adel Malik ANNABI

Preprint *arXiv:2606.24656 [math.OC]*

PUBLICATIONS

Homogeneous observer for a low-dimensional neural fields model of cortical activity (2024)

Adel Malik ANNABI, Jean-Baptiste Pomét, Dario Prandi, Ludovic Sacchelli

Conference Paper published in *IEEE Conference on Decision and Control (CDC)*



Activity estimation via distributed measurements in an orientation sensitive neural fields model of the visual cortex (2024)

Adel Malik ANNABI, Jean-Baptiste Pomet, Dario Prandi, Ludovic Sacchelli

Journal Paper published in *Mathematics of Control, Signals, and Systems (MCSS)*

Identification in saturated networked systems (2025)

Adel Malik ANNABI, Jean-Baptiste Pomet, Dario Prandi, Ludovic Sacchelli

Conference Paper published in *IEEE Conference on Decision and Control (CDC)*