# Nesrine AROUA

PHD-STUDENT IN APPLIED MATHEMATICS

## PERSONAL DATA

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🏦 Manar 1, 2092 Tunisia

in nesrine-aroua

## AWARD

- "Presidential Award" for the best candidate in a Bachelor's degree in mathematics: 23/07/2019

## INTERESTS

- Programming
- Research
- Designing art

## LANGUAGES

- Arabic: Mothertongue
- English: Intermediate
- French: Intermediate (Projet voltaire 654)
- Spanish: Beginner (Ave Global A1)

## EDUCATION

- PHD. in Applied Mathematics,
- Title: Carleman inequality and applications to the study of some inverse problems for different partial differential equations
- Thesis supervisor: **Mourad BELLASSOUED**
- Laboratory: LAMSIN-ENIT
- since 10/2021

- Master's Degree in Mathematical Modelling and Scientific Computing M2 - Master 2 International Mathematics Nice-Maghreb
  **(double degree)**
  National Engineering School of Tunis (ENIT)- University of Côte d'Azur, Nice / 2020-2021

- Master's Degree in Mathematics and Application M1,
  Faculty of Sciences of Tunis (FST) / 2019 - 2020

- Bachelor's Degree in Mathematics,
  Faculty of Sciences of Tunis (FST) / 2016 - 2019

# PUBLICATIONS

- N. Aroua and M. Bellassoued,"Determination of first order perturbation for bi-harmonic operator by asymptotic boundary spectral data", arXiv, Pub Date: 25-04-2023.
- N. Aroua and M.Bellassoued,"Stable determination of a second order perturbation of the polyharmonic operator by boundary measurements", Journal of Mathematical Analysis and Applications 522(2), 2023. Doi :10.1016/j.jmaa.2022.126965.

# SCIENTIFIC PRESENTATIONS

- "Stable determination of a second order perturbation of the polyharmonic operator by boundary measurements"
  LIGHT Seminar, Basque Center for Applied Mathematics-Spain, 06/06/2023.
- "Stable determination of a second order perturbation of the polyharmonic operator by boundary measurements"
  Annual Meeting Of LAMSIN Doctoral Students, Tunisia, 04/03/2023.
- "Décroissance de l'énergie locale de l'équation des ondes pour le problème extérieur"
  Annual Meeting Of LAMSIN Doctoral Students, Tunisia, 09/01/2022.

# RESEARCH INTERNSHIP

- From 01/05/2023 to Present, Basque Center for Applied Mathematics, Bilbao-Spain; under the supervision of Dr **Pedro Caro**.

# ATTENDED SCHOOLS, CONFERENCES AND WORKSHOPS

- COLLOQUE TUNISO-FRANÇAIS D' EDP                                    Tunisia, 10-14 October 2022
- African Conference on Research in Computer Science
  and Applied Mathematics (CARI'2022)                                Tunisia, 04–07 October 2022
- Mediterranean and African Summer School on
  Artificial Intelligence (MASSAI)                                   ESPRIT-Tunisia, 06/2022
- Course: Introduction to Deep Learning,
  Professor Christophe Saint-Jean                                    FST-Tunisia, 05/2022
- Summer School on Visual data analytics                             ISCD-France, July-August 2019

## ORGANIZATION OF A SCIENTIFIC EVENT

- Annual Meeting Of LAMSIN Doctoral Students — Tunisia, 03/2023
- Doctoral Students Day (JDD) — ENIT-Tunisia, 05/2022

## VOLUNTEERING

- Volunteer (during Covid vaccination days)

## CERTIFICATES

- Matlab
  Tunisian Society of Physics
- Python
  Coursera
- Visual data analytics
  ISCD, Sorbonne university
- EXCEL 2019
  Microsoft

- Power Point 2019
  Microsoft
- Word 2019
  Microsoft
- Applications of AI for Anomaly Detection
  NVIDIA
- Fundamentals of Deep Learning
  NVIDIA

## COMPUTER SKILLS

- Python
- Matlab
- C programming language
- R programming language
- Scilab

- Blender
- Html, CSS
- Fenics
- Gmsh
- Latex