

# LAATABI MOHAMED NAJIB

## Doctoral student in Mathematics and Applications

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✉ Mohamed Najib Laatabi

Rabat, Morocco

Single

25 ans

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Ph.D. Candidate in Mathematics specializing in stochastic and deterministic modeling applied to biological systems.

Committed researcher and educator with a strong background in numerical analysis (MATLAB, Python) and a passion for making complex mathematical concepts accessible to students.



## PROFESSIONAL EXPERIENCE

### Teaching Assistant (TD) – General Mathematics

#### Part-time/Contract

📅 Academic Year 2025/2026

📍 Faculty of Sciences, Rabat

- Conducting weekly tutorials (TD) in General Mathematics, covering core undergraduate subjects: Linear Algebra, Geometry, and Analysis.
- Responsible for explaining complex theoretical concepts and leading practical problem-solving sessions to consolidate student understanding.
- Actively supporting first-year students in mastering fundamental mathematical techniques essential for future scientific studies.

### Instructor – Digital Skills

#### Part-time/Contract

📅 Academic Year 2024/2025

📍 Faculty of Sciences, Rabat

- 60 hours of practical instruction (TD/Practical Work) for the "Digital Skills" module (Computer Science Department).
- Taught essential digital competencies, covering the Microsoft Office Suite (Word, Excel, PowerPoint), the history of computing, and fundamental principles of Artificial Intelligence (AI) and web architecture.
- Provided hands-on training to undergraduate students, bridging theoretical concepts with practical technological application.

### Mathematics Instructor – Intensive Sessions

#### Part-time/Contract

📅 August 2024 - October 2024

📍 IZECSI Center, Rabat

- Instructed undergraduate students in Analysis and Algebra through specialized courses and intensive tutorials.
- Clarified complex mathematical concepts and led practical exercise sessions to ensure student mastery of fundamental principles.
- Enhanced student performance in university examinations by providing targeted review sessions and academic support.

### Master Thesis Project (PFE) / Research Internship

#### Subject: Stochastic Model of the Chemostat

📅 February 2024–July 2024

📍 Faculty of Sciences, Rabat

Developed and analyzed a stochastic chemostat model, specifically investigating microbial growth dynamics, biomass production. Validated the theoretical framework using MATLAB numerical simulations and quantitatively compared stochastic vs. deterministic dynamics to assess the impact of environmental fluctuations on system equilibria.

## EDUCATION AND DEGREES OBTAINED

### Ph.D. Candidate – Applied Mathematics

📅 2024 – Present

📍 Faculty of Sciences, Rabat

- Laboratory of Mathematical Analysis and Applications (LAMA).

### Master's Degree in Analysis and Applications. Specialization: Mathematical Modeling

📅 2022–2024

📍 Faculty of sciences Rabat

### Bachelor's Degree in Fundamental Mathematics

📅 2019–2022

📍 University of Kenitra

### High School Diploma, Life and Earth Sciences

📅 2019

📍 Assoul High School

## TECHNICAL SKILLS

Word

Matlab

Excel

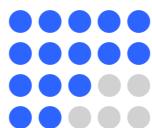
python

C & C++

LaTeX

## LANGUES

Amazigh



Arabic

French

English

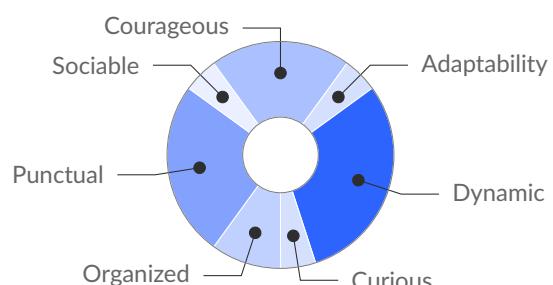
## INTERESTS

Cinema

Football

Travel

## QUALITIES



# PROFESSIONAL SKILLS

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Master's in Analysis and Applications

Faculty of Sciences, Rabat

2022 – 2024

## Applied Mathematics & Modeling

- Stochastic Processes & Brownian Motion
- Mathematical Modeling (Biological & Physical Systems)
- Qualitative Study of Dynamical Systems
- Dynamic Optimization & Optimal Control

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## Analysis & Simulation

- Partial Differential Equations (PDEs)
- Functional Analysis & Measure Theory
- Numerical Analysis & Scientific Computing

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## Computational & Technical Tools

- Programming: Python (NumPy, Matplotlib), MATLAB.
- Document Preparation:  $\text{\LaTeX}$ , Beamer, TikZ/PGFPlots

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# PROGRAMMING & TOOLS

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