

# Youcef Mammeri

Professor

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📄 [Université Jean Monnet, Institut Camille Jordan CNRS UMR 5208](#)  
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## CURRENT POSITIONS

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Full Professor, [Institut Camille Jordan CNRS UMR 5208](#), [Université Jean Monnet](#), Saint-Etienne

Director of research federative structure [MODMAD](#) (MODélisation Mathématique et Aide à Décision)

Joint in-charge of [VaLSEM](#) (Valorisation Lyon Saint-Etienne en Mathématiques)

Professor Convidado, [Universidade Aberta](#), Lisboa

Section 26: Applied mathematics and applications of mathematics

Member of the French mathematical society, French applied and industrial mathematical society, and European mathematical society

## PREVIOUS POSITIONS

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Maître de conférences Hors classe (senior associate professor, from the National Council of Universities), Université de Picardie Jules Verne, Laboratoire Amiénois de Mathématique Fondamentale et Appliquée | Sept. 2021 – Aug. 2022

Temporary researcher at INRA, Institute for Genetics, Environment and Plant Protection Rennes UMR 1345 | Sept. 2017 – Aug. 2018

Temporary researcher at CNRS, Université de Picardie Jules Verne, Laboratoire Amiénois de Mathématique Fondamentale et Appliquée | Sept. 2014 - Feb. 2015

Maître de conférences, Université de Picardie Jules Verne, Laboratoire Amiénois de Mathématique Fondamentale et Appliquée | Sept. 2010 - Sept. 2021

Postdoctorate, INRIA Bordeaux Sud-Ouest | Aug. 2008 – Aug. 2010

Doctorate, Université Lille 1, Laboratoire Paul Painlevé | Oct. 2005 - July 2008

## EDUCATION

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Accreditation to supervise research, Université de Picardie Jules Verne, LAMFA, Nov. 2015

Title: Dispersive and dissipative equations and some applications in ecology

PhD in mathematics, supervised by Pr. N. Tzvetkov, Université Lille 1, Laboratoire Paul Painlevé, July 2008

Title: On some asymptotics models in the theory of hydrodynamics waves (in French)

## GRANTS

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2021 – 2024	Recipient of the PhD and Research supervising grant (best 20%)
2018	IMU-CDC Volunteer Lectures Program, Caraga State University, Philippines
2017 – 2021	Recipient of the PhD and Research supervising grant (best 20%)
2018	Support for Training in Research, CIMPA, National University of Laos
2013 – 2017	Recipient of the PhD and Research supervising grant (rank A)

## RESEARCH THEMES

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**Modeling in life sciences:** Population dynamics, Identification, Sensitivity analysis, Asymptotic behaviour, Stochastic instability, Progressive waves

**Analysis of nonlinear PDE:** Equations of Advection-reaction-diffusion, Korteweg-de Vries, KdV-Burgers, with memory, Cauchy problem, Dispersion, Dissipation, Blow-up, Unique continuation, Hyperbolic limit, Stochastic dispersion

**Scientific computing:** Spectral method, Finite volumes

**Interdisciplinarity:** Ecology, Medicine, Biochemistry

## COLLECTIVE RESPONSIBILITIES

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Director of MODMAD, Member of the laboratory scientific council, In charge of the semester 5 of bachelor's degree in mathematics, Joint in-charge of ValSEM (since 2023)

Head of the Applied Analysis A3 team (2019-22), Elected member of the laboratory council (2019-22), Elected member of the doctoral council (2020-22). In charge of the Master degree in Modeling for Biology and Health (2018-22).

Reviewer for international journals (~80), HDR jury (1), PhD committee (14), PhD Jury (12), Recruiting committee (7). Editor for EMS Magazine, Guest editor for Computational and Mathematical Biophysics.

Advisor of master students (13 M1 and 22 M2), doctorate (9) and post-doctorate (2).

## MAIN PROJECTS LEADED

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1 National Research Agency (2020-2022), 1 PHC project with Caraga State University in the Philippines (2020-22), 1 PHC project with Rotorua in New Zealand (2017-19), 1 CNRS IEA with University of Evora and IST Lisbon (2019-22), 1 CNRS IEA with Politecnico di Milano (2015-18), 1 IFCAM with BITS Pilani.

## MAIN ORGANIZED SCIENTIFIC EVENTS

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May 2024	CIMPA school, Nakhon Pathom, <b>Thailand</b>
Aug. 2022	CIMPA school, Butuan, <b>Philippines</b>
Aug. 2021	SEAMS school, Butuan, <b>Philippines</b>
Jan. 2019	Conference IFCAM, Pilani, <b>India</b>
Jan 2018	SEAMS school, Nakhon Pathom, <b>Thailand</b>
Sept. 2017	Conference SiMBioS, Funchal, <b>Portugal</b>
Jan. 2017	CIMPA school, Vientiane, <b>Laos</b>
Dec. 2017	SEAMS school, Vientiane, <b>Laos</b>

## MAIN INVITATIONS

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BITS Pilani, IIT Roorkee, Silpakorn University, Caraga State University, New Zealand Forest Institute, University of Strathclyde, Purdue University, Politecnico di Milano, Instituto Superior Técnico Lisboa, Universidade de Evora, National University of Laos

## SCIENTIFIC PRODUCTION

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55 publications in international peer-reviewed journals; 10 international peer-reviewed conference proceedings; 4 softwares; 2 collective works. More details on [hal](#).

## FIVE MAJOR PUBLICATIONS

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among 55 in international peer-reviewed journals.

1. Y. MAMMERI, **A reaction-diffusion system to better comprehend the unlockdown: Application of SEIR-type model with diffusion to the spatial spread of COVID-19 in France**, *Comput. Math. Biophys.* 8 (2020) 102.
2. N. Bedjaoui, J. M.C. Correia and Y. MAMMERI, **On a limit of perturbed conservation laws with saturating diffusion and non-positive dispersion**, *Z. Angew. Math. Phys.* 71, 59 (2020) 18 pages.
3. F. Dell'Oro, O. Goubet, Y. MAMMERI and V. Pata, **Global attractors for the Benjamin-Bona-Mahony equation with memory**, *Indiana University Mathematics Journal* 69, 3, (2020), 749-783.
4. Y. MAMMERI and D. Sellier, **A surfacel model of the nonlinear non-steady-state phloem transport**, *Math. Bios. Eng.* 14, 4, (2017), 1055-1069.
5. Y. MAMMERI, J.B. Burie, M. Langlais and A. Calonnec, **How changes in the dynamic of crop susceptibility and cultural practices can be used to better control the spread of a fungal pathogen at the plot scale?**, *Ecological Modelling* 290 (2014) 178-191.