

CURRICULUM VITAE

Abdelhak Hafdallah

GENERAL INFORMATION

FUNCTION Associate Professor - Researcher
Department of Mathematics and Computer Science
University of Tebessa, Algeria.

Degree MCA

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Specialty Optimal control, Applied mathematics

Languages Arabic, English and French

Web pages https://www.researchgate.net/profile/Abdelhak_Hafdallah
<https://abgattal.academia.edu/AbdelhakHafdallah>
<https://www.linkedin.com/in/abdelhak-hafdallah-51766ba7>

EDUCATION

2013 - 2018 University of O.E.B., Ph.D.
Thesis title: Optimal control of some hyperbolic equations with missing data
Advisor: Abdelhamide Ayadi, full professor.

2010 - 2012 University of Tebessa, Magisterium .
Advisor: Abdelhamide Ayadi, full professor.

2005 - 2009 University of Tebessa, D.E.S.
Head of Class: Mathematics.

ACADEMIC EMPLOYMENT

July 2018 - Now **Associate Professor**, University of Tebessa, Algeria.

November 2012 –
July 2018 **Assistant Professor**, University of Tébessa, Algeria.

September 2011 - **High School Teacher**, Haouari Boumediane Secondary school.

November 2012

HONORS AND AWARDS

2009 **Head of Class**

Awarded for being Promotional staff, by University of Tébessa.

PUBLICATIONS

Elhamza, B., & **Hafdallah, A.** (2023). Identification of the Potential Coefficient in the Schrödinger Equation with Incomplete Initial Conditions from a Boundary Observation. *Russian Journal of Mathematical Physics*, 30(2), 176-183.

Elhamza, B. and **Hafdallah, A.**, (2023). Identification of the bulk modulus coefficient in the acoustic equation from boundary observation: a sentinel method. *Boundary Value Problems*, 2023(1), pp.1-10. <https://doi.org/10.1186/s13661-023-01708-3>

Elhamza, B. and **Hafdallah, A.**, (2022). Identification of the potential coefficient in the wave equation with incomplete data: a sentinel method. *Russian Mathematics*, 66(12), pp.102-111.

Laouar , C., Ayadi ,A., & **Hafdallah, A.** (2022). Identification problem of a fractional thermoelastic deformation system with incomplete data: A sentinel method. *Nonlinear Studies*, 29(2), 399-410.

Laouar , C., Ayadi ,A., & **Hafdallah, A.** (2021). Optimal Control of a Partially Known Coupled System of BOD and DO. *International Journal of Analysis and Applications*, 19(6), 984-996.

Hafdallah, A., & Abdelli, M. (2021). Averaged No-Regret Control for an Electromagnetic Wave Equation Depending upon a Parameter with Incomplete Initial Conditions. In *Electromagnetic Wave Propagation for Industry and Biomedical Applications*. IntechOpen. DOI: 10.5772/intechopen.95447

Benghazi, Z., Zeghichi, L., Djellali, A. & **Hafdallah, A.**(2020). Predictive Modeling and Multi-response Optimization of Physical and Mechanical Properties of SCC Based on Sand's Particle Size Distribution. *Arab J. Sci Eng.* <https://doi.org/10.1007/s13369-020->

Abdelli, M., **Hafdallah, A.**, Merghadi, F., & Louafi, M. (2020). Regional averaged controllability for hyperbolic parameter dependent systems. *Control Theory and Technology*, 18(3), 307-314.

Hafdallah, A. (2020). On the optimal control of linear systems depending upon a parameter and with missing data. *Nonlinear Studies*, 27(2), 457-469.

Hafdallah, A.. (2020). Optimal control for a controlled ill-posed wave equation without requiring the Slater hypothesis. *Ural Mathematical Journal*, 6(1 (10)).

Hafdallah, A., & Ayadi, A. (2018). Optimal control of electromagnetic wave displacement with an unknown velocity of propagation. *International Journal of Control*, <https://doi.org/10.1080/00207179.2018.1458157>.

Hafdallah, A., & Ayadi, A. (2018). Optimal control of a thermoelastic body with missing initial conditions. *International Journal of Control*, <https://doi.org/10.1080/00207179.2018.1519258>.

Hafdallah, A., Laouar, C. & Ayadi, A. (2017). No-regret optimal control characterization for an Ill-posed wave equation. *International Journal of Mathematics Trends and Technology (IJMTT)*. V41(3):283-288.

CONFERENCE PRESENTATIONS

TALKS

A. Hafdallah, A. Ayadi . Optimal control for wave equation with incomplete data. Talk presented at the *First International Conference on Modeling and Scientific Computing in Mathematical Engineering (MOCASIM)*, Marrakesh, Morocco from 19 to 22 November 2014 .

A. Hafdallah, A. Ayadi. About optimal control of problems with missed data. Talk presented at the *Seventh Workshop of Modelling, Analysis and Control of Systems (MACS-7)*, El Jadida, Morocco 29, and 30 October 2015.

A. Hafdallah, A. Ayadi. Oum El Bouaghi, Algeria, June 1st 2016.

A. Hafdallah, *On the optimal control of systems with missing data.* Talk presented at the *Identification and control: some challenges*. Monastir, Tunisia. 18–20 June, 2019.

POSTERS

A. Hafdallah, A. Ayadi (2016), About optimal control of problems with missed data. Poster presented at the *International Conference of the Euro-Maghreb Laboratory of Mathematics and their Interactions (LEM2I)*, Hammamet, Tunisia, April 27 to May 1st 2016.

CITATIONS

Total 78 h-index 6

REVIEWING

A REVIEWER FOR TAIWANESE JOURNAL OF MATHEMATICS DURING 2017.

A REVIEWER FOR Journal of Nonlinear Evolution Equations and Applications DURING 2021

A REVIEWER FOR Journal Rendiconti del Circolo Matematico di Palermo Series 2 DURING 2021

A REVIEWER FOR Results in Control and Optimization Journal DURING 2022

A REVIEWER FOR Results in *Journal of Mathematics* DURING 2023

EDITING

Guest Editor for the Special Issue “Recent Advances on Control Theory of Uncertain Systems: Methods and Applications” in Contemporary Mathematics ISSN: 2705-1064 DURING 2023.

https://ojs.wiserpub.com/index.php/CM/SI/Control_Theory_Uncertain_Syst

SUPERVISING

PHD STUDENT Bilal Elhamza **THESIS TITLE** Study of some identification problems by using the sentinel method **YEAR OF DISSERTATION** 2023

CO-SUPERVISING

PHD STUDENT **THESIS TITLE** **YEAR OF DISSERTATION** 2022

PHD STUDENT Bilal Elhamza **THESIS TITLE** Study of some identification problems by using the sentinel method **YEAR OF DISSERTATION** 2021

TEACHING & ADVISING

EXPERIENCE

January 2012

Maths 1 & Maths 2

September 2014-2016

Elliptic problems and spectral methods

September 2017- Now
2015- Now

Introduction to control theory of systems

Advising end of studies' project for Master students

October 2020- Now

Advisor of a PHD thesis.

October 2018- Now

Co-advisor of a PHD thesis.

CONFERENCE ORGANISATION COMMITTEE MEMBER

Scientific contribution as a member of the Scientific Committee of the IEEE

International Conference on Recent Advances in Mathematics and Informatics (ICRAMI'2021), held on September 21-22, 2021, University of Tebessa, Algeria

Workshop sur les Systèmes Dynamiques, les équations Différentielles et leurs applications, Oum El Bouaghi University, Algeria, November 14 &15, 2018.

Journée scientifique « Apport de la géophysique dans le domaine minier, cas de la méthode tomographie de résistivité électronique (TRE) » University of Tébessa, Algeria, January 23rd, 2018.