CURRICULUM VTÆ

First name & Last name: Abdessatar Khelifi

Professional address: Department of mathematics, Faculty of Science Bizerte, Carthage University.

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MAIN RESEARCH INTERESTS:

Asymptotic analysis**,** Perturbation theory, Inverse problems, Spectral theory.

EDUCATION:

- **1998-2002:** PhD in Mathematics (very honorable).

Ecole polytechnique Palaiseaux, France.

Location: Center for Applied Mathematics (CMAP), Ecole Polytechnique, France.
Supervisor: Habib AMMARI
Thesis Reporters:
- Oscar Bruno, University of California, USA
- Masahiro. Yamamoto, University of Tokyo, Japan
Composition of the jury:
- J-P. Puel, University of Versailles, France (President of the jury),
- Oscar Bruno, University of California, USA
- Masahiro. Yamamoto, University of Tokyo, Japan
- H. Ammari, Ecole Polytechnique, Paris, France
- D. Cioranescu, University of Paris VI, France
- K. Hamdache, Ecole Polytechnique, France
- V. Komornik, University of Strasbourg, France
- J-C. Nédélec, Ecole Polytechnique, France

- **1997-1998:** Master of Science in applied Mathematics: Numerical Analysis at the University Pierre & Marie Curie **(**Paris 6). France.
- **1992-1996:** Bachelor Degree in mathematics

  Faculty of science of Tunis, University of Tunis El-Manar, Tunisia.

- **1992:** General certificate of Education. School ibn Al Jazzar, Kairouan.

WORK EXPERIENCE:

2018-Present: Full professor, Department of mathematics, Faculty of Sciences Bizerte, Carthage University,Tunisia.

2013-2018: Associate professor, Department of mathematics, Faculty of Sciences Bizerte, Carthage University,Tunisia.

2012-2013: Assistant Professor, Department of mathematics, Faculty of Sciences Bizerte, Carthage University, Tunisia.

2007-2012: Assistant professor, Department of Mathematics, College of Science and Arts in Rass, Qassim University, Kingdom of Saudi Arabia.

2002-2007: Assistant Professor, Department of mathematics, Faculty of Sciences Bizerte, Carthage University, Tunisia.

2001-2002: Teaching assistant in the faculty of sciences of Creteil, university of Paris 12.
Courses taught: Analysis, Algebra, Functional analysis.

ADMINISTRATIVE POSITIONS:

2014-2018: Director of the Master's degree *in Mathematics*, Faculty of Scienc- Bizerte, Carthage University, Tunisia.

2013-Now: Member of the competent committee in the assessment of doctoral thesis, Faculty of Science of Bizerte, Carthage University, Tunisia.

2010-2012: Member of the Committee on the quality and academic reliance, College of Science and Arts in Rass, Qassim University, Kingdom of Saudi Arabia.

GRANTS AND AWARDS:

- A grant of the Tunisian state to study in France (1997-1998).

- A grant of the French state to excellent Tunisian students (1998-2001).

- Appreciation certificate from the College of Science and Arts Rass – Qassim university on efforts for contributions in fourth general assembly in the king Abdulaziz city for sciences and technology-National center for mathematics, physics-Saudi arabia, November 2018.

- The 2017 High-level Scientific Stay (SSHN 2017) of the French Embassy in Tunisia.

COMPUTTING SKILLS:

Matlab, Freefem++, Maple, Mathematica, Scientific Workplace, LaTeX, Microsoft Office.

LANGUAGES:

Arabic, French and English (fluent written and spoken).

SCIENTIFIC PUBLICATION:

- C. Daveau, A. Khelifi and S. Oueslati*, Small perturbations of an interface for Stokes problems . ZAMM - Journal (2019).*

- M. Gozzi and A. Khelifi, *On the behavior of resonant frequencies in the presence of small anisotropic imperfections*, Indagationes Mathematicae, Vol. 28, No. 6, (2017) 1240-1257.

- Daveau Christian, Khelifi Abdessatar and Balloumi Iman, Asymptotic Behaviors for Eigenvalues and Eigenfunctions Associated to Stokes Operator in the Presence of Small Boundary Perturbations. Math Phys Anal Geom (2017) 20: 13. doi:10.1007/s11040-017-9243-3.

- Khelifi Abdessatar, Lassad El Asmi and Manel Bouraoui, Reconstruction of polygonal inclusions in a heat conductive body from dynamical boundary data. ESAIM: M2AN, 51 3 (2017) 949-964.
- Khelifi, Abdessatar; Boujemaa, Saoussen, *Small perturbation of a surface: full Maxwell's equations.* J. Math. Anal. Appl. 444, No. 2, 1721-1738 (2016).
- Khelifi Abdessatar; Zribi Habib**,** *Boundary voltage perturbations resulting from small surface changes of a conductivity inclusion*. Appl. Anal. 93, No. 1, 46-64 (2014).
- Daveau Christian; Douady, Diane Manuel; Khelifi Abdessatar; Sushchenko, Anton, *Numerical solution of an inverse initial boundary-value problem for the full time-dependent Maxwell's equations in the presence of imperfections of small volume*. Appl. Anal. 92, No. 5, 975-996 (2013).
- Daveau Christian; Khelifi Abdessatar, *Asymptotic behaviour of the energy for electromagnetic systems in the presence of small inhomogeneities*. Appl. Anal. 91, No. 5, 857-877 (2012).
- A. Khelifi and H. Zribi, *Asymptotic expansions for the voltage potentials with two- and three-dimensional thin interfaces*. Math. Methods Appl. Sci. 34, No. 18, (2011),2274-2290.
- C. Daveau A. Khelifi and A. Shushenko, *Reconstruction of closely spaced small inhomogeneities via boundary measurements for the full time-dependent Maxwell's equations,* Appl. Math. Modelling 33, No. 3,(2009) 1719-1728.
- C. Daveau and A. Khelifi, *On the perturbation of the electromagnetic energy dueto the presence of small inhomogeneities.* C. R. Acad. Sci. Paris, Ser. I 346 (2008) 287-292.
- A. Khelifi, *Determination of small amplitude perturbations for the electric per-mittivity from partial dynamic boundary measurements.* J. Math. Phys. 48 (2007), no. 12, 123501, 10 pp.
- Daveau, Christian, Douady, Diane Manuel and Khelifi, Abdessatar, *On a hyperbolic coefficient inverse problem via partial dynamic boundary measurements.* J. Appl. Math. , 14 p. (2010).
- A. Khelifi, *Asymptotic property and convergence estimation for the eigenelements of the Laplace operator.* Appl. Anal. 86 (2007), no. 10, 1249-1264.
- H. Ammari and A. Khelifi, *Electromagnetic scattering by small dielectric inhomogeneities.* J. Math. Pures Appl. (9) 82 (2003), no. 7, 749-842.

Main Working Papers:

- C. Daveau and A. Khelifi, *Reconstruction of a complex electromagnetic coefficient from partial measurements for the Maxwell's equations (submitted).*
- S. Oueslati, I. Balloumi, C. Daveau, and A. Khelifi*, Analytical method for the evaluation of singular integrals arising from boundary element method in electromagnetism (submitted).*
- A. Khelifi and S. Boujemaa*, Maxwell interface problems: Existence and uniqueness of solutions for Maxwell Equations.*
- M. Gozzi and A. Khelifi, On a largest eigenvalue problem.