

CURRICULUM VITAE

DAVEAU CHRISTIAN

Section 26,

Maître de conférences à l'Université de Cergy-Pontoise,

Habilité à diriger des recherches,

Département de Mathématiques

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1 Etat civil

Daveau christian,

13 Allée de Lille,

91170 Viry-Chatillon.

2 Cursus universitaire

1995: maître de conférences à l'université de Cergy-Pontoise.

2006: Habilité à diriger des recherches à l'université de Cergy-Pontoise.

2008: Bénéficiaire de la PEDR.

3 Enseignement

1995-1999: Enseignement de l'analyse à IIUP de Cergy

2000-2005: CM et TD d'analyse en première année option M1

CM méthode des éléments finis en master M2.

2006-2007: TD d'algèbre en L3, TD intégration en L2.

2007-....:

CM en master MPA M2 : méthode discontinue de Galerkin,

CM en master MPA M2 méthode des éléments finis,

CM en master MPA M2 Simulation EmG,

TP optimisation à l'Ensa.

CM et TP calcul scientifique à l'Ensea.

Pendant plusieurs années, colleur en classes préparatoires deuxième année, option MP.

4 Responsabilités administratives

- responsable du séminaire analyse numérique
- responsable du M1 du master MPA parcours math appliquée

5 Collaborations industrielles

Avec Dassault-Aviation, thèse d'abil Aubakirov

Avec plusieurs PME sur diverses études

6 Encadrement de thèses

2004: S. Mefire (Orsay),

2005: (UCP) Mr Menad est maître de conférences à Chlef (Algérie),

2006: (Orsay) Mr Zaghdani est maître de conférences à l'école supérieure de Tunis,

2009: (UCP) Mr Essayed, maître de conférences à l'école supérieure de Tunis,

2010: A. Shushenko maître de conférences à l'école d'ingénieur de Cergy EPMI.

2008-.. A. Aubakirov,

2009-.. A. Riaz
2011-..Hong Cam Thi Luong
2010- Housseidine

7 Publications et Conférences

7.1 Publications

- 2011
 - C. Daveau, A. Khelifi, A. Sushchenko, "Numerical solution of an inverse initial boundary value problem", revised in *Applicable Analysis*, 2011.
 - C. Daveau, A. Khelifi, "Asymptotic behaviour of the energy for electromagnetic systems in the presence of small inhomogeneities", *Applicable Analysis*, 22 fev 2011, pp 1-21.
 - C. Daveau, A. Zaghdani, "Mixed discontinuous Galerkin Method for the Three electrostatic problem", the *International Journal of Pure and Applied Mathematics*, Volume 69 No. 4 2011, 357-387.
- 2010
 - C. Daveau, A. Khelifi, "On an inverse problem of reconstructing an unknown coefficient in a second order hyperbolic equation from partial boundary measurements ", *Methods and Applications of Analysis*, Vol. 17, No. 4, pp. 433-444, December 2010.
 - C. Daveau, A. Zaghdani, "On the coupling LDG-FEM and BEM For The Three Dimensional Magnetostatic problem", *Applied Mathematics and Computational*, 2010.
 - C. Daveau, Sayed, "Local Discontinuos Galerkin method for scalar conservation laws", *Far East J. of Applied Mathematics*, fev 2010.
- 2009
 - C. Daveau, A. Khelifi, A. Sushchenko, "Numerical results for reconstruction of closely spaced small inhomogeneities via boundary measurements for the full Time dependent Maxwells equations in 3D", *Proceedings Enumath, Book*, Springer, june 2009.
 - C. Daveau, Construction of an interpolant operator. Application to the three dimensional electrostatic problem, *Applied Mathematical Letters*, Vol 22, Issue 11, Nov 2009, Pages 1685-1689.

- C. Daveau, A. Zaghdani, "A hp-Discontinuous Galerkin Method for the time dependent Maxwells Equations: a priori error estimate," Journal of Applied Mathematics and Computing, 2009.
- C. Daveau, A. Khelifi, A. Shuschenko, "Reconstruction of closely spaced small inhomogeneities via boundary measurements for the full time-dependent Maxwells equations", Applied Model, no. 3, 1719-1728, 2009.
- C. Daveau, A. Khelifi, A. Shuschenko, Reconstruction of small inhomogeneities for the full time-dependent Maxwells equations, Proceedings, Aplimat, pp 159-175, fev 2009.
- 2008
 - C. Daveau, A. Khelifi, On the perturbation of the electromagnetic energy due to the presence of inhomogeneities with small diameters, C. Acad. Sci. Paris, Ser.I 2008.
 - Renard F., Nguyen M.K., Sushchenko A, Daveau C., New Methods for non destructive evaluation using scattered gamma ray, Proceedings, Cofrend, Toulouse, 2008.
- 2006
 - C. Daveau, A.Zaghdani, Two Discrete Inequalities of Poincaré-Friedrichs in Discontinuous Spaces for Maxwells Equations,. C. Acad. Sci. Paris, Ser.I 342 (2006).
 - C. Daveau, M. Menad, "Comparison of several discretization methods of the Steklov-Poincaré operator", Int. J. of Numer. Model. 2006; 19:271-287.
- 2003
 - C. Daveau et M. Menad, "Mixed FEM and BEM Coupling for the Three Dimensional Magnetostatic Problem," Num. Meth. For Partial Differential Equ., 2003.
- 2001
 - C. Daveau, J. Laminie, "Mixed and Hybrid Formulations For The Three-Dimensional Magnetostatic Problem," Num. Methods For Partial Differential Equation, Mai 2001, pp 85-104.
- 2000
 - C. Daveau, "Analyse dune formulation mixte en magnétostatique

linéaire”, Revue Européenne des Eléments Finis, mars 2000, pp 612-620.

- B. Bandelier, C. Daveau, P. Ashtiani, A. Rais, F. Rioux-Damidau, “Use of stream functions for the computation of currents in thin circuits. Determination of the impedances”, IEEE Trans. Mag-36, 2000, pp. 760-764.

- 1999

- B. Bandelier, C. Daveau, J. Laminie, S. M. Mefire, F. Rioux-Damidau, “Three-Dimensional Magnetostatic Problem”, Int. J. Numer. Meth. Engng., vol 46, 1999, pp.117-130.

- B. Bandelier, C. Daveau, F. Rioux-Damidau, “Several Mixed Finite Element Techniques for Magnetostatics,” IEEE Trans. Mag., 35, may 1999, pp 1175-1178.

- B. Bandelier, C. Daveau, F. Rioux-Damidau, “Specific Formulation for High Frequency Eddy-Current,” IEEE Trans. Mag., 35, may 1999, pp 1171- 1174.

- C. Daveau, F. Rioux-Damidau, “A New (e-h) Formulation Coupling a Finite Element Method and a Boundary Integral Method for the Computation of the Interaction of Waves with a Conducting Domain”, IEEE Trans. Mag, Vol 35, No.2, march 1999

- 1994

- B. Bandelier, C. Daveau, F. Rioux-Damidau, “A New h-Formulation for Nonlinear Magnetostatics in R^3 ”, IEEE Trans. Mag., 30, 1994, pp 2889- 2892.

- 1993

- B. Bandelier, C. Daveau, F. Rioux-Damidau, An h-formulation for the computation of magnetic fields. Implementation by combining a finite element method and a boundary element method, J. Phys III France, (3) 1993, pp 995-1004.

8 Conférences

- 2011

A. Aubakirov, P. Soudais, C. Daveau, ”High-order Impedance Boundary Conditions for Coated Objects” PIERS 2011 in Suzhou Progress in

Electromagnetics Research Symposium, 12-16 September 2011, Suzhou, China.

C. Daveau, A. Khelifi, A. Shuschenko, D Manuel Douady, "On the Numerical Inverse Problem of the Detection of Inhomogeneities for the Maxwell's Equations", PIERS 2011 in Suzhou Progress in Electromagnetics Research Symposium, 12-16 September 2011, Suzhou, China.

- 2010

C. Daveau, "Asymptotic behaviour of the energy for electromagnetic systems in the presence of small inhomogeneities", International Conference on Inverse Problems, April 25 - 29, 2010, Wuhan University, Wuhan.

C. Daveau, A. Riaz " A New symmetric Discontinuous Galerkin Formulation for the time dependent Maxwell's equation", AIP Conf Proc.,1821, 317 (2010).

- 2009

Christian Daveau : "On an inverse problem for a linear heat conduction problem", 7th International ISAAC Congress, 2009.

C. Daveau, " Numerical results for reconstruction of closely spaced small inhomogeneities via boundary measurements for the full Time dependent Maxwells equations in 3D", Enumath, june 2009.

C. Daveau, "Reconstruction of closely spaced small inhomogeneities via boundary measurements for the full time-dependent Maxwells equations", Aplimat, Bratislava, fev 2009.

C Daveau, A. Khelifi, A. Sushchenko, An inverse problem of identifying locations of small volume perturbations of the refractive index for the acoustic equation at fixed frequency, CIRM09, Marseille, fev 2009.

- 2008

C. Daveau, A. Zaghdani, A hp-Discontinuous Galerkin Method for the time dependent Maxwells Equations: a priori error estimate, Sixth (6th) International Conference of Numerical Analysis and Applied Mathematics, ICNAAM, 2008, Greece.

C Daveau, A. Khelifi, A. Shuschenko, An inverse problem of identifying locations of small volume perturbations of the refractive index for the acoustic equation at fixed frequency, soumis dans The 10th Workshop on Optimization and Inverse Problems in Electromagnetism,(OIPE), Germany, sept 2008.

Renard F., Nguyen M.K., Sushchenko A, Daveau C., New Methods for non destructive evaluation using scattered gamma ray, Cofrend, Toulouse, 2008.

- 2006
C. Daveau, A. Zaghdani, La méthode discontinue de Galerkin pour les équations de Maxwell, Congrès de Mathématiques appliquées et industrielles, SMAI, 2006.
- 2005
C. Daveau, A. Zaghdani, Etude d'une Formulation Discontinue couplée avec une méthode des éléments finis pour les équations de Maxwell, Congrès de Mathématiques appliquées et industrielles, SMAI, 2005.
- 2004
C. Daveau, M. Menad, Etude de formulations mixtes hybrides pour les équations de Maxwell, Congrès de Mathématiques appliquées et industrielles, SMAI, 2004.
- 2002
T. T. Truong, M.K. Nguyen, H. D. Bui and C. Daveau, Determination of the electronic density in a medium by an inverse method based on double-Compton scattering in transmission imaging, 4th Int. Conf. on Inv.Problems in Engng: Theory and Practice, Rio de Janeiro, Brazil, pp405-412, 2002.
- 1999
C. Daveau, L. Hamouda, F. Rioux-Damidau, Three-Dimensional Computations For Magnetostatic Problem, The Fourth International Congress on Industrial and Applied Mathematics, Edinburgh, Scotland, 1999. C. Daveau, Mixed formulation involving the magnetic induction in magnetostatics, Congrès d'analyse numérique ' Toulouse, CANUM99.
- 1998
B. Bandelier, C. Daveau, F. Rioux-Damidau, Several Mixed Finite Element Techniques for Magnetostatics, IEEE CEFC98 The Eighth Biennial IEEE Conference on Electromagnetic Field Computation, June 1-3, 1998, Tucson, Arizona, USA.

- 1994
B. Bandelier, C. Daveau, F. Rioux-Damidau, Solution of Problem 13 using h-formulation, Proceeding de International Team Workshop, 1994.
- 1993
B. Bandelier, C. Daveau, F. Rioux-Damidau, Mixed Finite Element Method applied to Magnetostatic with H-field as variable, 5th International IGTE Symposium on Numerical Field Calculation Electrical Engineering, Graz (Autriche), 1993.