CURRICULUM VITAE

1. CITIZENSHIP

Name: PERIAUX, Jacques
Born: Le Perreux 93110, France, April 15, 1942
Children: 4

2. DEGREES

DEA Mécanique des Solides, Université Paris 6, 1965
DEA Analyse Numérique, Université Paris 6, 1967
PhD, Spécialité Analyse Numérique, (supervised by Prof. R. Glowinski), Université Paris 6, 1979
Habilitation, Spécialité: Mathématiques, Mention : Analyse Numérique
  (supervised by Prof. R. Glowinski; Jury Chair, Prof. J.L. Lions), Université Paris 6, 1989

3. FIELDS OF INTEREST

1. Numerical Solution of Non Linear Partial Differential Equations;
2. Finite Element Methods for 3-D Computational Fluid Dynamics;
3. Aerodynamic Design of manned/unmanned aircraft vehicles;
4. Aero thermal shape design of space vehicles in Aerospace Engineering;
5. Domain Decomposition/Fictitious Domain Methods on parallel architectures;
6. Mesh adaptation with a posteriori errors estimates;
7. Computational Electro magnetics;
8. Multidisciplinary Design Optimization
9. Control Theory
10. Evolutionary Algorithms and Game Theory
11. Computational Intelligence
12. Life Sciences and Medical Applications

4. POSITIONS

1970 - 1978	Engineer at Dassault Aviation, Département Aérodynamique Théorique;
1978 - 1990	Senior Engineer at Dassault, Head of Numerical Analysis Group;
1986 - 1992	Numerical Analysis R& D program leader for the design of the European Hermes Space Shuttle, Dassault Aviation;
1990 - 1995	Leader of the Numerical Analysis Group, Dassault Aviation;
1993 - 1996	Visiting Professor, Univ. of Jyvaskyla, Finland;
1985 -	Adjunct Professor, Depart. of Mathematics, Univ. of Houston, USA;
1995 - 1997	Scientific Adviser, Computational Applied Mathematics, Assistant Director, Scientific Strategy & Prospective, Dassault Aviation;
1997 - 2002	High Adviser, Direction de la Prospective;
1998 - 2004	Chairman Pole Scientifique Dassault-Aviation / Univ. P&M Curie;
1999 -	Adjunct Professor, IUPUI Purdue, USA;
2000 - 2004	Adjunct Director at Dassault Aviation, Direction de la Prospective
2004 - 2006	Honorary Chairman, Pole Scientifique Dassault Aviation/UPMC 2004
- 2006	University Fellow, University of Jyvaskyla, Finland
2004 -	Associate external member of Laboratoire Jacques Louis Lions, Univ. P&M Curie.
2007 -2011	TEKES Finnish Distinguished (FIDIPRO) Professor, Univ. of Jyvaskyla, Finland 2005 -
2008	Senior Visiting Professor Aeronautics, UPC/CIMNE Barcelona, Spain
2008-	UNESCO Chair Professor, UPC/CIMNE Barcelona, Spain
2011-	University Fellow, University of Jyvaskyla, Finland

5. CONSULTING POSITIONS

1986 - 1997   Conseiller Scientifique, INRIA Rocquencourt, France
1998 - 2004   Conseiller Scientifique, INRIA Sophia Antipolis, France
2004-   INRIA Sophia Antipolis OPALE Project Associate
2014-   ULPGC –IUSIANI / CEANI Project Associate

6. HONORS AND AWARDS

IMA Fellow, 1986
Honorary Degree: Doctor Honoris Causa, NUAA, Nanjing, P.R. of China, 1989
CNRS National Committee member on Mathematics, 1991 - 1995
AIAA Associate Fellow, 1992
French Science et Defense Award, 1993
Honorary Degree: Doctor Honoris Causa, BUAA, Beijing, P.R. of China, 1998 Conference
on the occasion of J. Periaux's 60th anniversary on "Numerical Methods for Scientific
Computing", Univ. of Jyvaskyla, Finland, 2002
Friendship Certificate and Friendship Medal Award, Jiangsu Province, 2002
National "Friendship Award ", SAFEA Beijing, 2010

7. DISTINCTIONS

Chevalier de l'Ordre des Palmes Académiques, 1996
International Academy of Astronautics (IAA): Corresponding member elected, July 2011

8. TEACHING ACTIVITIES

Univ. of Paris 6, Lab of Numerical Analysis, 1991-1993
Univ. of Lyon 1, Lab. of Numerical Analysis, 1994-1995
Pôle Leonard de Vinci, Paris 1995Univ. Paris 6, Lab. of Numerical Analysis, 1996-2002
Univ. of Jyvaskyla, Dept. of Maths, 1998
External member of LIP6, Univ. P&M Curie, 1998 –
Univ. of Milano, MIRIAM, Dept of Applied Mathematics, 2004
ULPGC, IUSIANI (Seminars), 2006

J. Périaux participated as invited lecturer in several Summer Schools, Short Courses and Workshops
in the USA, Japan, China, India, Finland, Belgium, Russia, Uzbekistan, Brazil, Argentina, Chile,
Australia.

9. E.U. ACTIVITIES

DG3 : Expert in DGIII Projects; Coordinator of I. T. Projects (DECISION;1998-2000)
DG12 Research: Coordinator of Thematic Networks (INGEnet and FLOWnet, 1998-2002)
DG 13: Deputy Industry Coordinator of Network of Excellence (MACSInet, 2000- 2003)
DG13: Board member for Industrial Liaison of Network. of Excellence (EVOnet,2000)
DG Research: Deputy Industry Coordinator of Accompanying Measures (PROMUVAL, 2002- 2004)
Coordinator of Specific Supported Actions (AEROCHINA 2005- 2007, AEROCHINA2 2007- 2009)
DG12: Co- Coordinator Networking EC project GRAIN on Green Technologies, 2010-2012
DG12: Co- Coordinator EC project CAero on Harmonious Dissemination, 2010-2013
DG12: Co- Coordinator Networking EC project GRAIN2 on Green Technologies, 2013-2015
DG12: Co-coordinator EC project CAero2 on Harmonious Dissemination, 2014-

10. MEMBERSHIPS OF EDITORIAL BOARDS

Communications in Applied Numerical Methods, International Journal of Computational

Fluid Dynamics, Surveys on Mathematics for Industry, Springer Verlag, 1992
Computational Fluids Dynamics Journal, 1993
CFD review, 1997
Computational Methods in Engineering, 1998
Notes on Numerical Fluid Mechanics Series, Springer, EH. Hirschel Chief Editor, 2001-
Springer Journal on Mathematics in Industry (Associate editor) 2010.

Computer Assisted Methods in Engineering and Science (CAMES), Associate Editor,
November 2011-

11. MEMBERSHIP OF SCIENTIFIC ASSOCIATIONS

SIAM (Society for Industrial and Applied Mathematics);
SEMNI (Société Espagnole de Méthodes Numériques en Ingénierie); SMAI
(Société des Mathématiques Appliquées et Industrielles);
GAMNI (Groupe pour l'Avancement des Méthodes Numériques de l'Ingénieur); ERCOFTAC
(European Research Community for Flow, Turbulence and Combustion); IACM
(International Association for Computational Mechanics);
AIAA (American Institute of Aeronautics and Astronautics);
AFFRST (Association Franco/ Finlandaise pour la Recherche, en Science et Technologies).

12. PROFESSIONAL ACTIVITIES

ERCOFTAC Managing Committee member, 1987; IACM

General Council member, 1990;

INSA Scientific Council member, 1991; ECL

Scientific Council member, 1990; GAMNI

Président, 1985-1992;

ECCOMAS Chairman, 1993-1996;

AIAA Fluid Dynamics Technical Committee member, 1992; LIAPUNOV

Institute Scientific Council member, Moscow, 1994; ICAS Scientific

Council member, Novosibirsk, 1993;

AFFRST, Managing Board member, 2000;

ECCOMAS Conference, CFD Chairman, Brussels, 1992; 1st

Joint US/Europe Short Course in Hyper.,

Chairman, Paris 1987; 2nd Joint US/Europe Short Course in Hyper., Co-

Chairman, Colorado Springs, 1989;

3rd Joint US/Europe Short Course in Hyper., Co-Chairman, Aachenn, 1990; Workshop

on Hyp. Flows for Reentry Pbs, Part I, Co-Chairman, Antibes, 1990; Workshop on

Hyp. Flows for Reentry Pbs, Part II, Co-Chairman, Antibes, 1991;

Workshop on the European Hypersonic Data Base, Part III, Co-Chairman, Antibes 1993; VIII

Int. Conf. on Finite Elements in Fluids, Co- Chairman, Barcelona, 1993;

2nd International Conference and Workshop on Approximation and Numerical Methods for

the Solution of the Maxwell equations, Co-Chairman, Washington D.C., 1993;

3rd International Conference and Workshop on Approximation and Numerical Methods for the Solution of the Maxwell equations, Co-Chairman, Oxford, 1995;

EUROGEN 95: Genetic Algorithms in Engineering and Computer Science, Las Palmas de Gran Canaria, 1995;

Short Course Director EUROGEN 97, Genetic Algorithms in Engineering and Computer Science,Trieste 1997;

Short Course Co-Director EUROGEN 99, Genetic Algorithms in Engineering and Computer Science, Jyvaskyla 1997;

Short Course Co-Director EUROGEN 2001;

1st European Conference on Evolutionary Algorithms for Industrial Applications, Athens, 2001; Co-Chairman EUROGEN 2003,

2nd European Conference on Evolutionary Algorithms for Industrial Applications, Athens, 2001; Co-Chairman ECCOMAS 96 Conference, Co-Chairman, Paris 1996;

ECCOMAS 98 CFD Conference, Co-Chairman, Athens 1998;

ECCOMAS 00 Conference, Co-Chairman, Barcelona 2000;

ECCOMAS 04 Conference, Co-Chairman, Jyvaskyla, 2004;

ECCOMAS 06 CFD Conference, Co-Chairman, Egmond aan Zee, Netherlands, 2006;

ECCOMAS 10 CFD Conference, CO-Chairman, Lisbon, Portugal, 2010

EUROGEN 07 Conference, Co-Chairman, Jyvaskyla, Finland, 2007

EUROGEN 09 Conference, Co-Chairman, Cracow, Poland, 2009

EUROGEN 11 Conference, Co-Chairman, Napoli, Italy, 2011

CIME Summer Course on Computational Mathematics for Industry, co-director with Prof. V. Capasso and Prof. H. Engl., Martina Franca, Italy, June 21-26, 1999;

French/Chilean Workshop on Mathematical and Numerical Tools for Complex Systems: the City of Tomorrow, Santiago del Chile, Chile, September 27-30, 1999;

VKI Course Director on Genetic Algorithms for Design in Aeronautics, Rhodes Saint Genese, Brussels, April 2000;

VKI Course Co-Director on Verification and validation methods in CFD, Rhode Saint Genese, Brussels, June 2000;

VKI Course Co- Director on Numerical Optimization Methods & Tools for Multi-criteria /Multi-Disciplinary Design with Applications to Aeronautics and Turbomachinery, Rhodes Saint Genese, Brussels, November 2004;

MACSInet Summer School on Mathematical Methods for Multidisciplinary Control and Optimisation Problems, co-director with Prof. V. Capasso, Florence, Italy, March 2003;

ICIAM03 Industry Advisory Committee member, Sydney, Australia, July 2003; ERCOFTAC

Special Interest Group on Optimization Committee member, January 2004;

SAROD'05 Conference, Advances in Applied Aerodynamics and Design of Aerospace Vehicles, Bangalore, India, December 2005; International Committee member

VKI Course Co-Director on Numerical Optimization Methods & Tools for Multi-criteria/Multi-Disciplinary Design applications to Aeronautics and Turbomachinery, Rhodes Saint Genese, Brussels, March 5-9, 2006;

VKI Course Co- Director on Introductory Optimization Methods & Tools for Multi-criteria/ Multi-Disciplinary Design in Aeronautics and Turbomachinery, Rhodes Saint Genese, Brussels, June 2-6, 2008.

VKI Course Co- Director on *Introduction to Optimization and Multidisciplinary Design in Aeronautics and Turbomachinery*, Rhodes Saint Genese, Brussels, September 10-14, 2018

VKI Visio Course Co- Director on Optimization Methods for Computational Fluid Dynamics, September 7-11 2020

VKI Course Co- Director on Introductory Optimization Methods & Tools for Multi-criteria/ Multi-Disciplinary Design in Aeronautics and Turbomachinery, Rhodes Saint Genese, Brussels, May 16-20, 2022

13. VISITS ABROAD
1. Countries in Western Europe and Nordic countries (Sweden, Norway and Finland)
2. Russia and CEI: Moscow, St-Petersburg, Novosibirsk, Tomsk, Uzbekistan (Tashkent)
3. Argentina, Brazil, Chile, Venezuela
4. Asia: China (Chinese Aeronautical Establishment (CAE), TSINGHUA, NUAA, BUAA, Zheyang, NPU,..) India, Japan, Australia (Sydney University, Queensland Technical University), Singapore (NSU)
5. USA: MIT, Stanford University, California Institute of Technology, Purdue University, UCLA, La Jolla, University of San Diego, University of Denver, University of Houston, Princeton, NASA JSC, NASA Ames, ICASE.....

These visits correspond to stays in Universities, participation in conferences, summer schools, workshop, etc....

14. NOTABLE RECENT AND FORTHCOMING INVITED LECTURES (1995 -)

8th Domain Decomposition Conference, Beijing, 1995;

SIAM 95 annual meeting, Charlotte, North Carolina, November 1995;

AMS Conference on Partial Differential Equations, Mount Holyoke, June 1996;

International Conference on Domain Decomposition Methods and Applications, (in honor of Prof. I. Kawarada's sixty birthday, Kyoto, July 1996);

SEMNI Conference on Numerical Methods, Saragosse, Spain 1996;

International Numerical Methods in Fluids, Beijing, September 1997;

EUROGEN 97, Trieste, December 1997;

AIAA, January 1998 Aerospace Science Conference, Reno, USA;

10th International Conference on Finite Elements in Fluids, Arizona, January 1998;

CIMENICS, Puerto La Cruz, Venezuela, March 21-24, 1998;

Domain Decomposition in Multifield Theories M.F. Oberwolfach, April 1998;

WCCM4, Buenos Aires, Argentine, June 1998; Domain

decomposition methods, London, July 1998; ICAS 98,

Melbourne, September 1998;

CEDYAP Conference, Las Palmas de Gran Canaria, Spain, September 21-25, 1999;

XXCILAMCE Sao Paolo, Brazil, November 3-5 1999;

ECMI 2000 Conference, Palerme, Italy, September 26-30, 2000;

1st Advanced Fluid Information Conference, Sendai, Japan, October 4-5, 2001; 15th

TOYOTA Conference, Mikkabi Creative Center, Japan, October 28-31, 2001;

JSIAM, Introductory Course to Numerical Simulations, Tokyo, Japan, Nov. 1-2, 2001;

CFSWA01, French/Australian Workshop on Couplings of Fluids, Structures and Waves Problems in Aeronautics, Melbourne, Australia, Dec 6-9, 2001;

VI Congres des Mathématiciens Appliqués Français et Chiliens, Santiago, Chili, 17-21 décembre 2001;

WCCM5, Fifth World Congress on Computational Mechanics, Vienna, Austria, July 7-12, 2002;

ICCFD 2002 Conference, University of Sydney, Sydney, Australia, July 2002 (invited speaker);

ParCFD02 Conference, Kyoto, May 2002 (tutorial on Parallel EAs for CFD applications);

Mathematisches Forschungsinstitut Oberwolfach, Numerical Techniques for Optimisation Problems with PDE constraints Oberwolfach, Germany, Feb 16-22, 2003;

MACSInet Spring School on Multidisciplinary methods for analysis, optimization and control of complex systems, March 17-22, Montecatini, Italy (invited speaker);

FEF '03, Meijo University, Nagoya, Japan April 2-4, 2003;

ADMOS03, Goteborg, Sweden, September 2003 (invited keynote lecture);

SAROD'03 Conference, Advances in Applied Aerodynamics and Design of Aerospace Vehicles, Bangalore, India, December 2003 (invited speaker);

International Conference on Control, PDEs and Scientific Computing, Academia Sinica, Beijing, September 13-16 2004 (invited speaker);

Ecole d'Hiver Franco-Indienne sur les EDPs et ses Applications, TIFR, Bangalore, India, Fevrier 7-12, 2005;

FEF05, 13th Finite Elements in Flow Problems conference, University of Wales Swansea, April 4-6, 2005 (invited keynote speaker);

International Conference on Selected problems of Moder Mathematics, dedicated to the 200th anniversary of K.G. Jacoby, and the 750th anniversary of the Kalingrad (Koenisberg) foundation, Russian Acad. Of Sciences, April 2005;

Introduction to Optimization and Multidisciplinary Design, Applications to Aeronautics and Turbomachinery, VKI Lecture Series, Rhode St Genese, Belgium March 6-10, 2006, (Course Co-Director with H. Deconinck and invited speaker);

VIII International Congress on Numerical methods in Engineering and Applied Sciences, March 20- 24, 2006, Margarita Island, Venezuela, 2006 (invited speaker);

ECCOMAS Thematic Conference, Computational Solid and Structural mechanics, LNEC, Lisbon, Portugal, June 5-8, 2006 (keynote speaker);

WCCM7 Congress, Los Angeles, USA, July 16-22, 2006 (keynote speaker);

Domain Decomposition Methods Conference 17 (DDM17), Graz, Austria, July 3-7, 2006 (invited speaker);

WEHSFF07 Conference, November 19-22, 2007, Moscow, Russia (Minisymposium organizer and invited speaker);

VKI Lecture Series, Rhode St Genese, Belgium June 2-6, 2008, Introductory optimization methods and tools for Multidisciplinary Design in Aeronautics and Turbomachinery, (Course Director and invited speaker);

ECCOMAS/WCCM Venice 2008, STS07 coordinator on "High Quality Design in Aeronautics

Mathematisches Forschungsinstitut Oberwolfach, Numerical Techniques for Optimization

Problems with PDE constraints, January 25-31, 2009.

VKI Lecture Series, Rhode St Genese, Belgium May 30 –June 4, 2010, Introductory optimization methods and tools for Multidisciplinary Design in Aeronautics and Turbomachinery, (Course Director and invited speaker);

WCCM/APCOM Sydney 2010, Mini symposium coordinator on "Advanced MDO techniques for Intelligent systems", July 26-30, 2010

CAO2011, Computational Analysis and Optimization, June 9-11, 2011, Jyvaskyla, Finland, Conference In Honor of Pekka Neittaanmaki's 60th Birthday

VKI Lecture Series, Rhode St Genese, Belgium May 7-11, 2012, Introductory optimization methods and tools for Multidisciplinary Design in Aeronautics and Turbomachinery, (Course Director and invited speaker);

OPT-I 2014, Optimization Conference, Kos Island, Greece (plenary Invited speaker), June 2014

ECCOMAS CFD Conference 2014, Barcelona; Special Technological Session (STS) organizer on

Green Technologies Challenges in Aeronautics

VKI Lecture Series, Rhode St Genese, Belgium, May 23-27, 2016, Introduction to Optimization and Multidisciplinary Design, (Course Director and invited speaker); to appear 2017

18th French –Spanish School, University Las Palmas de Gran Canaria, 2018 (plenary invited speaker)

AeroBest Conference 2021, Lisbon, Portugal organized by A. Marta and A. Suleman, Univ. of Lisbon, Portugal, ECCOMAS Thematic Conference on Multidisciplinary Design Optimization of Aerospace Systems, *Hybridized Evolutionary Optimization with Game Strategies for Multi Objective/ Multidisciplinary Design. Applications to Aeronautics and Aerospace design* (plenary invited speaker), July 20-23, 2021

CAE 60th anniversary Workshop, Beijing, "*A Durable and Friendly Scientific and Technological Cooperation between China and Europe – the Creation, Development and Operation of a EU-China Network in Aeronautics (2005 – 2020),* December 2-3, 2021

15. BOOKS (AS CO-EDITOR AND CONTRIBUTOR IN CHAPTERS)

1. GAMM Workshop, Numerical Analysis of Laminar Flow Over a Step, Bievres, edited by K. Morgan, J. Périaux, F. Thomasset, Notes on Numerical Fluid Mechanics, Vieweg, Vol. 9, 1983

2. GAMM workshop, Numerical Simulation of Compressible Navier Stokes Flows, Nice, edited by M. O. Bristeau, R. Glowinski, J. Périaux, H. Viviand, Notes on Numerical Fluid Mechanics, Vieweg, Vol. 18, 1986.

3. Innovative Numerical Methods in Engineering, Proceedings of the 4th International Symposium, Atlanta, USA, 1986, edited by R.P. Shaw, J. Périaux, A. Chaudouet, J. Wu, C. Marino and C.A. Brebbia, Springer Verlag.

4. GAMM Workshop, Numerical Simulation of Compressible Euler Flows, INRIA Rocquencourt, edited by A. Dervieux, J. Périaux, A. Rizzi, B. Van Leer, Notes on Numerical Fluid Mechanics, Vieweg, 1989.

5. Innovative Numerical Method in Engineering, Proceedings of the 5th International Symposium, Lausanne, Switzerland, 1989, edited by R. Gruber, J. Périaux, R.P. Shaw, Springer Verlag.

6. Hypersonics, Volumes 1 and 2, First Joint Europe/US Short Course on Hypersonics, Paris, 1987, J. Bertin, R. Glowinski, J. Périaux, eds, Birkhauser, 1989.

7. Advances in Hypersonics, Volumes 3,4 and 5, Second and Third Joint Europe/US Short Course on Hypersonics, Colorado Springs, 1989 and Aachen, 1990, J. Ballmann, J. Bertin and J. Périaux eds, Birkhauser, 1992.

8. Proceedings of the Antibes Workshop on Hypersonic Flows for Reentry Problems, Part I, J.A. Désidéri, R. Glowinski and J. Périaux eds, Springer Verlag, Volumes I & II, 1991.

9. Proceedings of the Antibes Workshop on Hypersonic Flows for Reentry Problems, Part II, R. Abgrall, J.A. Désidéri, R. Glowinski, M. Mallet and J. Périaux eds., Springer Verlag, Volume III, 1993.

10. Proceedings of the 1st International Symposium on Domain Decomposition Methods for Partial Differential Equations, G. H. Golub, R. Glowinski, G. Meurant, J. Périaux eds, SIAM, Philadelphia, 1988.

11. Proceedings of the 2nd International Symposium on Domain Decomposition Methods for Partial Differential Equations, T.F. Chan, R. Glowinski, J. Périaux, O.B. Widlund eds, SIAM, Philadelphia, 1989.

12. Proceedings of the 3rd International Symposium on Domain Decomposition Methods for Partial Differential Equations, T.F. Chan, R. Glowinski, J. Périaux, O.B. Widlund eds, SIAM Philadelphia, 1990.

13. Proceedings of the 4th International Symposium on Domain Decomposition Methods for Partial Differential Equations, R. Glowinski, Y.A. Kuznetsov, J. Périaux and O.B. Widlund eds, SIAM, Philadelphia, 1991.

14. Proceedings of the First European Computational Fluid Dynamics Conference, C.Hirsch, J. Périaux and W. Kordulla, Eds., 1992

15. Proceedings of the Parallel CFD '93 Conference, A. Ecer, J. Hauser, P. Leca, J.Périaux, eds, Elsevier, Amsterdam.

16. Proceedings of the 2nd French-Russian workshop on Fluids Dynamics: Modelization, Experimental and Computational Aspects, Y. Kuznetsov, B. Chetverushkin, A. Désidéri, J. Périaux, B. Stoufflet eds., John Wiley, 1995.

17. Numerical Methods for the solution of Maxwell Equations, J. Périaux and R. Lohner, Eds., John Wiley, 1994.

18. Proceedings of the 2nd Conference / Workshop on Optimum Shape design in Aerodynamics, J. Périaux, P. Chaviaropoulos, T. Labrujere, E. Oñate, B. Stoufflet Eds., Vieweg Verlag, 1996.

19. Domain Decomposition in Sciences and Engineering: The 6th International Conference on Domain Decomposition, June 15-19; 1992, Como, Italy, A. Quarteroni, J. Périaux, Y.A. Kuznetsov, O.B. Widlund, Eds., Serie 157 in Contemporary Mathematics, AMS.

20. Genetic Algorithms in Engineering and Computer Science, Las Palmas de Gran Canaria, Spain, G. Winter, J. Périaux, M. Galan, P. Cuesta, Eds., John Wiley, 1995.

21. Proceedings of the 3rd French-Russian workshop on Fluids Dynamics, Tashkent, Uzbekistan: Modelization, Experimental and Computational Aspects, Y. Kuznetsov, B. Chetverushkin, A. Désidéri, J. Périaux, Eds, John Wiley to appear.

22. Proceedings of the Parallel CFD '94 Conference, Kyoto, Japan A. Ecer, N. Satofuka, J. Périaux Eds, Elsevier Amsterdam.

23. Proceedings of the Parallel CFD '95 Conference, A. Ecer, S. Taylor, J. Périaux, N. Satofuka, Eds. Elsevier Amsterdam

24. Proceedings of the Parallel CFD '96 Conference, Capri, Italy, A. Ecer, J. Périaux, N. Satofuka, P. Schiano Eds., Elsevier Amsterdam.

25. Proceedings of ECCOMAS '92 Conference, Brussels, Belgium, C. Hirsch, W. Kordulla, E. Oñate, J. Périaux, O. Zienkiewicz, Eds, John Wiley.

26. Proceedings of ECCOMAS Computational Fluid Dynamics '94 Conference, Stuttgart, Germany, S. Wagner, J. Périaux, R. Riva, Eds., John Wiley.

27. Proceedings of ECCOMAS '96 Conference, Paris, France, J.A. Désidéri, C. Hirsch, P. Le Tallec, E. Oñate, M. Pandolfi, J. Périaux, E. Stein, Eds., John Wiley

28. Computational Science for the 21st Century, M.O. Bristeau, G. Etgen, W. Fitzgibbon, J.L. Lions, J. Périaux, M. F. Wheeler, Eds, John Wiley, 1997

29. Genetic Algorithms in Engineering and Computer Science, Trieste, Italy, J. Périaux, C. Poloni, D. Quagliarella, G. Winter, Eds., John Wiley, 1997

30. Optimum Aerodynamic Design and Parallel Navier Stokes Computation, ECARPEuropean Computational Aerodynamics Research Project -J.Périaux, G. Bugeda, P. K. Chaviaropoulos, K.

Giannakoglou, S. Lanteri, B. Mantel, Eds., Vieweg Verlag, Notes of numerical fluids mechanics - Vol. 61, 1998

31. Computational Mathematics Driven by Industrial Problems, Lectures Notes in Mathematics, 1739, Springer, Martina Franca, Italy 1999, Eds: V. Capasso, H. Engl, J.Periaux

32. CFD for the 21Century, Proceedings of a Symposium Honoring Prof. Satofuka on the occasion of his 60th Birthday, Kyoto, Japan, 15-17 July, 2000, Eds: M. Hafez, K. Morinishi, J. Periaux, Notes on Numerical Fluid Mechanics, Volume 78, Springer.

33. Innovative Tools for Scientific Computation in Aeronautical Engineering, Eds: J.Periaux, P. Joly, O.Pironneau and E. Oñate, CIMNE Barcelona, A series of handbooks on Theory and Engineering Applications of computational methods, 2001

34. Fluid Dynamics and New Aeronautical Challenges, Eds: J.Periaux, D. Champion, J.J. Gagnepain, O.Pironneau, B. Stoufflet and P. Thomas, CIMNE Barcelona, A series of handbooks on Theory and Engineering Applications of computational methods, 2003

35. West East High Speed Flow Field Conference, D. Zeitoun, JA Desideri and J. Periaux, Eds, Marseille, France, April 22-26, 2002, CIMNE Barcelona, A series of handbooks on Theory and Engineering Applications of computational methods, 2003.

36. EUROGEN2001 Conference, 19-21 September, Athens, Greece, Eds: K. Giannakoglou, D. Tsahalis, J.Periaux and K.Papailiou, CIMNE Barcelona, A series of Handbooks on Theory and Engineering Applications of Computational Methods, 2002

37. Couplings of Fluids, Structures and Waves problems in Aeronautics, Proceedings of the CFSWA01 French/Australian Workshop, Dec 6-9, 2001, Eds: N. Barton and J. Periaux, Notes on Numerical Fluid Mechanics, Springer, 2003

38. Evolutionary Methods for Design, Optimization and Control, Applications to Industrial and Societal Problems, G. Bugeda, J-A. Desideri, J.Periaux, M. Schoenauer and G. Winter Eds, CIMNE Barcelona, A series of Handbooks on Theory and Engineering Applications of Computational Methods, 2003

39. Proceedings of the 13th Domain Decomposition Methods in Sciences and Engineering Conferences, Lyon, France, September 2000, M. Garbey, Y. Kuznetsov, J.Periaux, Eds, CIMNE Barcelona Publications, A Series of Handbooks on Theory and Engineering Applications of Computational Methods, 2002

40. MACSInet Spring School 2003 on Mathematical Methods for Multidisciplinary Control and Optimisation Problems, Montecatini, Italy, V. Capasso and J. Periaux, Eds, 2004

41. Proceedings of the 15th Conférence Domain Decomposition Methods in Sciences and Engineering Conference, Berlin, July 2003, R. Kornhuber, R.H.W. Hoppe, J.Periaux, O.Pironneau, O. Widlund, J.Xu, Eds, Springer, 2004

42. Evolutionary Algorithms in Engineering Optimization and Applied Sciences: theory and applications, W. Annicchiarico, M. Cerrolaza, J.Periaux and G. Winter, in CIMNE Barcelona Publications, A Series of Handbooks on Theory and Engineering Applications of Computational Methods, CIMNE and WIT Press, 2005

43. Evolutionary and Deterministic Methods for Design, Optimization and Control, Proceedings of EUROGEN05, Munich, September 12-14, 2005, Eds: R. Schilling, W. Haase, J.Periaux and H. Baier, Springer in the Series of Eccomas Thematic Conferences,2006

44. Numerical Analysis and Scientific Computing for Partial Differential Equations and their Challenging Applications, Dedicated to Prof. O.Pironneau's 60's anniversary Eds :J. Haataja, R. Stenberg,J. Periaux, P. Raback, Neittaanmaki, in CIMNE Barcelona Publications, A Series of Handbooks on Theory and Engineering Applications of Computational Methods, CIMNE and WIT Press, 2008

45. Evolutionary and Deterministic Optimization Methods for Design in Industry and Society, EUROGEN013, Las Palmas de Gran Canaria, October 5-9, 2013, D. Greiner, B. Galvan, J.Periaux, N. Gauger and K. Giannakoglou (Eds), Springer-ECCOMAS series,vol:36, 522 pages, 2015

16. BOOKS

J. Periaux has twenty (20) books published or in preparation (with collaborators):

1. Domain Decomposition and Domain Embedding methods: Parallel Implementation in Sciences and Engineering, R. Glowinski, J. Périaux and T.W.Pan, Eds., Springer, to appear

2. Evolutionary Design Optimization Methods in Aeronautics and Turbomachinery, J.Periaux, G. Degrez, M. Sefrioui, Eds, John Wiley, to appear

3. Proceedings of the French/Australian Workshop on Multidisciplinary Methods and Tools for UAV Design Applications, Sydney July 14-16, 2003, Eds: K.C. Wong and J. Periaux, in Notes on Numerical Fluid Mechanics, Springer,

4. Numerical Analysis and Scientific Computing with PDEs and their Challenging Applications (dedicated to O. Pironneau), Eds:R. Glowinski, P. Neittaanmaki, J.Periaux, P. Raback, R. Stenberg, CIMNE- Barcelona publisher, 2008

5 Evolutionary and Deterministic Methods for Design, Optimization and Control, Proceedings of EUROGEN07, Jyvaskyla, Finland, June 11-13, 2007, Eds: P. Neittaanmaki, J.Periaux and T. Tuovinen, CIMNE Barcelona Publications, 2008

6. Conference on Scientific Computing in Simulation, Optimization and Control and its Multidisciplinary Applications (dedicated to R.Glowinski 's 70th anniversary, Jyvaskyla, Finland, June 14-15, 2007, Eds: P. Neittaanmaki, J.Periaux and T. Karkainen, K.Majava, Springer – ECCOMAS publisher, 2009

7. Evolutionary and Deterministic Methods for Design, Optimization and Control, Proceedings of EUROGEN09, Cracow, Poland, June 13-15, 2009, Eds: T. Burczyncki and J.Periaux, CIMNE Barcelona Publications,

8. D.S. Lee, K. Srinivas, L.F. Gonzalez, J. Periaux and S. Obayashi. Robust Multidisciplinary Design Optimisation Using CFD & Advanced Evolutionary Algorithms. Computation Fluid Dynamics Review 2010, World Scientific, ISBN 978-981-4313-36-0, pp. 469-491, June 2010.

9. Evolutionary Optimization and Game Strategies for Advanced Design : Applications to Aeronautics,

J. Periaux, F.L. Gonzalez and C. Dong Seop Lee, Springer Series: Intelligent Systems, control and Automation (ISCA), 2015

10. David Greiner, Jacques Periaux, Jose M. Emperador, Blas Galvan, Gabriel Winter, *GAME THEORY BASED EVOLUTIONARY ALGORITHMS: A REVIEW WITH NASH APPLICATIONS IN STRUCTURAL ENGINEERING OPTIMIZATION PROBLEMS,* Journal: Archives of Computational Methods in Engineering; Springer; DOI 10.1007/s11831-016-9187-y, 2016, pp.1-48.

11. David Greiner, Blas Galván, Jacques Periaux, Nicolas Gauger, Kyriakos Giannakoglou, Gabriel Winter,*EVOLUTIONARY AND DETERMINISTIC METHODS FOR DESIGN, OPTIMIZATION AND CONTROL WITH APPLICATIONS TO INDUSTRIAL AND SOCIETAL PROBLEMS - EUROGEN 2013,* Eds : Universidad de Las Palmas de Gran Canaria, Spain; 143 pps, 2014

*12.*David Greiner, Blas Galván, Jacques Periaux, Nicolas Gauger, Kyriakos Giannakoglou, Gabriel Winter, *EVOLUTIONARY AND DETERMINISTIC METHODS FOR DESIGN,OPTIMIZATION AND CONTROL WITH APPLICATIONS TO INDUSTRIAL AND SOCIETAL PROBLEMS*, Eds: Universidad de Las Palmas de Gran Canaria, Spain; 253 pps; 2013

13. Edmondo Minisci, Massimiliano Vasile, Jacques Periaux, Nicolas Gauger, Kyriakos Giannakoglou, Domenico Quagliarella, *EVOLUTIONARY AND DETERMINISTIC METHODS FOR DESIGN,OPTIMIZATION AND CONTROL WITH APPLICATIONS TO INDUSTRIAL AND SOCIETAL PROBLEMS -EUROGEN 2015*, Springer, 2018

14. Périaux J., Felipe G., Lee Dong Seop Chris, *Evolutionary Optimization and game Strategies for Advanced Multi-Disciplinary Design, Application to Aeronautics and UAV Design*, Intelligent Systems, Control and Automation: Science and Engineering, Springer, 2015

15. P.Diez, P. Neittaanmaki, J.Periaux, T. Tuovinen, *Computational Methods and Model for Transport* , ECCOMAS-Springer Series in Computational Methods in Applied Sciences, 2018

16. B.N. Chetverushkin,W. Fitzgibbon, Y.A. Kuznetsov, P. Neittaanmäki, J.Pironneau, O.Pironneau, *Contributions to Partial Differential Equations and Applications,* ECCOMAS- Springer, 2018

17. Z. Tang, Y. Chen, L. Zhang, J.Periaux, *Solving the Two Objective Evolutionary Shape Optimization of a Natural Laminar Airfoil and Shock Control Bump with Game Strategies*, in Archives of Computational Methods in Engineering, State of the Art Reviews, ISSN 1134-3060 Arch Computational Methods Engineering, DOI 10.1007/s11831-017-9231-6, 2017

18. L. M. González, E. Andrés-Pérez, N. R Gauger, J.Periaux, K.C.Giannakoglou, D. Quagliarella, *Evolutionary and Deterministic Methods for Design Optimization and Control With Applications to Industrial and Societal Problems*, EUROGEN 2017, Springer –ECCOMAS, 2018

19. T. Tuovinen, J.Periaux, P.Neittaanmaki, Computational Sciences and Artificial Intelligence in Industry,in Intelligent Systems, Control and Automation: Science and Engineering, Springer, 2022

20. D. Knoerzer, T. Tuovinen, J.Periaux, *Advances in Computational Methods and Technologies in Aeronautics and Industry,* Eccomas-Springer Series on Computational Methods in Applied Sciences, In preparation 2022

17. PUBLICATIONS

More than 250 papers in Journals, Proceedings of Conferences, Congress, chapters of collective books or scientific reviews of international level.

Papers in Journals

1. J. PERIAUX, 3-D Analysis of Compressible Potential Flows with the Finite Element Method, *Int. J. Numerical Methods in Engineering*, Vol.9, 1975, pp 775-831.

2. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, P. PERRIER, O. PIRONNEAU, On the numerical solution of nonlinear problems in fluid dynamics by least squares and finite element methods. (I) Least square formulations and conjugate gradient solution of the continuous problems, *Comp. Meth. Appl. Mech. Eng.,* 17/18, (1979), pp 619-657.

3. R. GLOWINSKI, J. PERIAUX, O. PIRONNEAU, An efficient preconditioning scheme for iterative numerical solution of partial differential equations, *Applied Math. Modeling*, Vol. 4, (1980), pp. 187-192.

4. Q.V. DINH, R. GLOWINSKI, J. PERIAUX, Domain Decomposition Methods for Nonlinear Problems in Fluid Dynamics, *Comp. Meth. Appl. Mech. Eng*., 40, (1983), pp. 27-109.

5. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, O. PIRONNEAU, G. POIRIER, On the numerical solution of nonlinear problems in fluid dynamics by least squares and finite element methods (II). Application to transonic flow simulations, *«Computer Methods in Applied Mechanics and Engineering »,* 51, (1985), pp. 363-394.

6. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Numerical Methods for the Navier-Stokes Equations. Applications to the simulation of compressible and incompressible viscous flow, *Computer Physics Reports*, 6, (1987), pp. 73-187.

7. C. BEGUE, R. GLOWINSKI, J. PERIAUX, Détermination d'un opérateur de préconditionnement pour la resolution itérative du problème de Stokes dans la formulation d'Helmholtz, *C. R. Acad. Sc., Paris, T. 306. Série I*, (1988), pp. 247-252.

8. M. O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, G. S. SINGH, On the use of subcycling for solving the compressible Navier-Stokes equations by operator splitting and finite element methods*, Comm. Appl. Num. Meth.,* 4, (1988), pp. 309-317.

9. M. O. BRISTEAU, R. GLOWINSKI, L. DUTTO, J. PERIAUX, G. ROGE, Compressible viscous flow calculations using compatible finite element approximations, *Int. J. Num. Meth. in Fluids*, 11, (1990), 6, pp. 719-749.

10. C. ATAMIAN, Q. V. DINH, R. GLOWINSKI, J. W. HE, J. PERIAUX, On some imbedding methods applied to fluid dynamics and electro-magnetics*, Comp. Meth. Appl. Mech. Eng*., 91, (1991), pp. 1271- 1299.

11. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A fictitious domain method for Dirichlet problem and applications, *Comp. Meth. Appl. Mech. Eng*., 111, (1994), pp.283-303.

12. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A fictitious domain method for external incompressible viscous flow modeled by Navier-Stokes equations, *Comp. Meth. Appl. Mech. Eng.,* 112, (1994), pp.

133-148.

13. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A Lagrange Multiplier / Fictitious Domain Method for the Dirichlet Problem - Generalization to Some Flow Problems, *Japan J. of Indus. and Appl. Math.,* Vol. 12, (1995), 1, pp. 87-108.

14. R. GLOWINSKI, T. W. PAN, A. J. KEARSLEY, J. PERIAUX, Numerical Simulation and Optimal Shape for Viscous Flow by a Fictitious Domain Method, *Int.J. Num. Meth. Fluids*, Vol. 20, (1995), pp. 695-711.

15. M. O. BRISTEAU, J. ERHEL, P. FEAT, R. GLOWINSKI, J. PERIAUX, Solving the Helmholtz equation at high-wave numbers on a parallel computer with a shared virtual memory, *International J. of Supercomputing Applications*, 9, (1995), 1, pp.18-28.

16. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Controllability methods for the computation of time periodic solutions; application to scattering, *J. Comp. Phys.,* 147, (1998), 2, pp. 265-292.

17. R. GLOWINSKI, T.W. PAN, J. PERIAUX, Distributed Lagrange multiplier methods for incompressible viscous flow around moving rigid bodies, *Comp. Methods, Appl. Mech. Engrg*. 151, (1998), pp. 181-194.

18. J.W. HE, R. GLOWINSKI, R. METCALFE, J. PERIAUX, A numerical approach to the control and stabilization of advection-diffusion systems: application to drag reduction, *« Int. J. Comp. Fluid Dynamics. »,* 11, (1998), pp. 131-156.

19. R. GLOWINSKI, T.W. PAN, T.I. HESLA, D.D. JOSEPH, J. PERIAUX, A distributed Lagrange multiplier fictitious domain method for flow around moving rigid bodies: Application to particulate flow, *Int. J. Numer. Meth. Fluids*, 30, (1999), pp. 1043-1066.

20. R. GLOWINSKI, T. W. PAN, T. I. HESLA, D. D. JOSEPH, J. PERIAUX, A distributed Lagrange multiplier fictitious domain method for the simulation of flow around moving rigid bodies: application to particulate flow, *Comput. Methods in Appl. Mech. and Engineering*, 184, (2000), pp. 241-267.

21. J. W. HE, R. GLOWINSKI, R. METCALFE, A. NORDLANDER, J. PERIAUX, Active Control and drag reduction for flow past a circular cylinder. I. Oscillatory cylinder rotation, *J. Comp. Phys.,* 163, (2000), pp. 83-117.

22. R. GLOWINSKI, T. W. PAN, T. I. HESLA, D. D. JOSEPH, J. PERIAUX, A fictitious domain approach to the direct numerical simulation of incompressible fluid flow past moving rigid bodies: Application to particulate flow, *J. Comp. Phys.,* 162, (2001), pp.363-426.

23. A. M. RAMOS, R. GLOWINSKI, J. PERIAUX, Nash equilibria for the multi objective control of linear partial differential equations, *J. Opt. Theory and Appl*., 112, (2002), 3, pp. 457-498.

24. A. M. RAMOS, R. GLOWINSKI, J. PERIAUX, Pointwise control of the Burgers equation and related Nash equilibrium problems: computational approach, *J. Opt.Theory and Appl.,* 112 (2002), 3, pp. 499-516.

25. J. PERIAUX, H.Q. CHEN, B. MANTEL, M.SEFRIOUI,and H.T.SUI, Combining Game Theory and genetic Algorithms with Application to DDM-Nozzle Optimization Problems, *"Finite Elements in Analysis and Design", Vol.* 37 (2001), Issue 5 , pp. 417-429.

26. J.F. WANG, J. PERIAUX, M. SEFRIOUI, Parallel evolutionary algorithms for optimization problems in aerospace engineering, *J. of Computational and Applied Mathematics* 149 (2002) pp.155-169, Elsevier, 2002

27. D.S.LEE, L.F. GONZALEZ, K. SRINIVAS and J. PERIAUX, *Robust Evolutionary Algorithms for UAV/UCAV Aerodynamic and RCS Design Optimization,* Special Issue of Computers and Fluids dedicated to Prof. M. Hafez. Vol 37. Issue 5, pages 547-564, ISSN 0045-7930.

28. D.S.Lee, L.F.Gonzalez, K.Srinivas and J.Periaux, *Robust Design Optimisation using Multi-Objective Evolutionary Algorithms,* Special Issue of Computers and Fluids dedicated to Prof. M. Hafez. Vol 37.

Issue 5, pages 565-583, ISSN 0045-7930.

29. D.S. LEE, L.F. GONZALEZ, K. SRINIVAS and J. PERIAUX, Robust Evolutionary Algorithms for UAV/UCAV Aero dynamic and RCS Design Optimisation, *Special Issue Journal of Computers and Fluids, Vol 37. Issue 5, pages 547-564, ISSN 0045-7930, 2008* (Impact factor: 1.41)

30. D.S. LEE, L.F. GONZALEZ, K. SRINIVAS, and J. PERIAUX, Robust Design Optimisation using Multi Objective Evolutionary Algorithms, *Special Issue Journal of Computers and Fluids. Vol 37. Issue 5, pages 565-583, ISSN 0045-7930, 2008* (Impact factor: 1.41).

31. J. PERIAUX, D.S. LEE, L.F. GONZALEZ and K. Srinivas, *Fast Reconstruction of Aerodynamic Shapes using Evolutionary Algorithms and Virtual Nash Strategies in a CFD Design Environment*, Special Issue Journal of Computational and Applied Mathematics (JCAM). *Vol 232. Issue 1, pages 61-71, ISSN 0377- 0427*, 2009.

32. D. S. Lee, L. F. Gonzalez, J. Périaux and K. Srinivas, "Efficient Hybrid-Game Strategies Coupled to Evolutionary Algorithms for Robust Multidisciplinary Design Optimization in Aerospace Engineering," in *IEEE Transactions on Evolutionary Computation*, vol. 15, no. 2, pp. 133-150, April 2011.

33. D.S. LEE, L.F. GONZALEZ, J. PERIAUX, *UAS Mission Path Planning System (MPPS) Using Hybrid-Game Coupled to Multi-Objective Design Optimizer,* ASME -Journal of Dynamic System, Measurement and Control, Vol. 132, Issue 4, pages 041005, , July 2010.

34. D.S. LEE,L.F. GONZALEZ, J. PERIAUX, K. SRINIVAS and E.OÑATE, *Hybrid-Game Strategies for Multi-Objective Design Optimization in Engineering,* International Journal Computers & Fluids, Vol. 47, Issue 1, pages 189-204, August 2011.

35. D.S. Lee, J. Periaux, G. Bugeda, and E. Oñate, *Robust Active Shock Control Bump Design Optimization using Parallel Hybrid-MOGA*, Special Issue Parallel CFD - An International Journal Computers & Fluids, Volume 80, pages 214-224, July 2013.

36. D.S. Lee, J. Periaux, L.F. Gonzalez, K. Srinivas, and E. Oñate, *Robust Multidisciplinary Unmanned Aerial System Design Optimization.* International Journal of Structural and Multidisciplinary Optimization, Vol. 45, Issue 3, pages 433-450, March 2012. (DOI: 10.1007/s00158-011-0705-0).

37. and G. Bugeda, *Double Shock Control Bump Design Optimization Using Hybridized Evolutionary Algorithms.* Special Issue on Evolutionary Computation in Aerospace Sciences - Journal of Aerospace Engineering, Vol. 225 (10), pp. 1175-1192, (DOI: 10.1177/0954410011406210) October 2011. (Impact factor: 0.773).

38. D.S. Lee, L.F. Gonzalez, J. Periaux, D.S. Lee, L.F. Gonzalez, J. Periaux, K. Srinivas, and E. Oñate, *Hybrid-Game Strategies for Multi- Objective Design Optimization in Engineering*. In International Journal Computers and Fluids. Vol. 47 (1), pp 189-204, (DOI: 10.1016/j.compfluid.2011.03.007) 2011. (Impact Factor 1.87)

39. D.S. Lee, J. Periaux, L.F. Gonzalez, E. Oñate, N. Qin, *Active Transonic Aerofoil Design Optimization Using Robust Multi-objective Evolutionary Algorithms*. AIAA - Journal of Aircraft. Vol.48 (3) pp. 1084- 1094, (DOI: 10.2514/1.C031237) 2011. (Impact factor:0.962)

40. D.S. Lee, L.F. Gonzalez, J. Periaux, and K. Srinivas, *Hybrid-Game Strategies Coupled to Evolutionary Algorithms for Robust Multidisciplinary Design Optimization in Aerospace Engineering*. IEEE Transactions on Evolutionary Computation, Vol. 15 (2), (ISSN 1089-778X), pp. 133-150, April 2011. (Impact factor: 4.589)

41. Z. TANG, J. Periaux, *Constraints handling in Nash/Adjoint optimization Methods for Multi Objective Aerodynamics Design*, in Computer Methods in Applied Mechanics and Engineering, Computer Methods in Applied Mechanics and Engineering, Vol. 271, pages 130–143, April 2014.

42. David Greiner, Jacques Periaux, Jose M. Emperador, Blas Galvan, Gabriel Winter, *Game Theory Based Evolutionary Algorithms: A Review with Nash Applications in Structural Engineering Optimization Problems,* Archives of Computational Methods in Engineering, Vol. 24, pages 703–750, 2017

43. Jing Wang, Yao Zheng, Jianjun Chen, Fangfang Xie, Jifa Zhang, Jacques Périaux and Zhili Tang, *Single/two-objective aerodynamic shape optimization by a Stackelberg/adjoint method*, in Engineering Ooptimization 2020, Vol. 52, No. 5, pps. 753–776, 2020

Publications in Edited Books and Conference Proceedings

1. R. GLOWINSKI, J. PERIAUX, O. PIRONNEAU, Use of Optimal Control Theory for the numerical simulation of transonic flows by the method of finite elements, Proceedings of Conference *« Fifth International Conference on Numerical Methods in Fluid Dynamics »,* A.I. Van de Vooren, P. J. Zandbergen eds., Lecture Notes in Physics,Vol. 59, Springer-Verlag, Berlin, 1976, pp. 205-211.

2. R. GLOWINSKI, J. PERIAUX, O. PIRONNEAU, Transonic flow simulation by the Finite Element Method via Optimal Control, *Chapter 11 of Finite Elements in Fluids, Vol. 3*, R. H. Gallagher, O.C. Zienkiewicz, J.T. Oden, M. Morandi Cecchi, C. Taylor, eds., J. Wiley & Sons, London, 1978.

3. R. GLOWINSKI, B.MANTEL, J.PERIAUX, O.PIRONNEAU, H-1 least squares method for the Navier Stokes equations, Conference *Numerical Methods in Laminar and Turbulent Flows*, Swansea, July 17-21, 1978

4. J.PERIAUX, Résolution de quelques Problèmes Non linéaires en aérodynamique par des méthodes d'éléments finis et de moindres carrés, *Thèse de 3eme cycle*, Spécialité Mathématiques, Mention : Analyse Numérique, Université Pierre et Marie Curie, Juin,1979

5. M.O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, P. PERRIER, O.PIRONNEAU, A finite element approximation of Navier-Stokes equations for incompressible viscous fluids. Iterative methods of solution, *Approximation Methods for Navier-Stokes Problems,* R. Rautman ed., Lecture Notes in Mathematics,Vol. 771, Springer-Verlag, Berlin, 1979, pp. 78-128.

6. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, P. PERRIER, O. PIRONNEAU, G. POIRIER, Application of Optimal Control and Finite Element Methods to the Calculation of Transonic Flows and Incompressible Viscous Flows, *Numerical Methods in Applied Fluid Dynamics*, B.Hunt, ed., Academic Press, London,1980, pp. 203-320.

7. F. ANGRAND, R. GLOWINSKI, J. PERIAUX, P. PERRIER, G. POIRIER, O. PIRONNEAU, Optimum Design for Potential Flows, Proceedings of Conférence *« Third International Conference on Finite Elements in Flow Problems »,* Banff, Alberta, Canada, 10-13 June 1980, Vol. 1, D.H. Norrie, Eds., pp. 400-412.

8. R. GLOWINSKI, B. MANTEL, J. PERIAUX, O. PIRONNEAU, A finite element approximation of Navier-Stokes equations for incompressible viscous fluids. Functional least-square methods of solution, *« Computer Methods in Fluids »,* K. Morgan, C. Taylor, C.A. Brebbia, Eds., Pentech Press, London, 1980.

9. R. GLOWINSKI, B. MANTEL, J. PERIAUX, O. PIRONNEAU, G. POIRIER, An effcient preconditioned conjugate gradient method applied to nonlinear problems in fluid dynamics via least squares formulation, *« Computing Methods in Applied Sciences and Engineering »,* R. Glowinski, J.L. Lions, Eds., North-Holland, Amsterdam, 1980, pp. 445-487.

10. Q. V. DINH, R. GLOWINSKI, J. PERIAUX, Résolution numérique des équations de Navier-Stokes par des méthodes de décomposition de domaines, « *Méthodes Numériques dans les Sciences de l'Ingénieur* », GAMNI 2, Vol. 1, E. Absi, R.Glowinski, P. Lascaux, H. Veysseyre Eds., Dunod, Paris, 1980, pp. 383-404.

11. Q.V. DINH, R. GLOWINSKI, B. MANTEL, J. PERIAUX, P. PERRIER, Subdomain solution of nonlinear problems in fluid dynamics on parallel processors, *Computing Methods in Applied Sciences and Engineering V*, R. Glowinski, J.- L Lions eds., North-Holland, Amsterdam, 1982, pp. 123-164.

12. Q.V. DINH, R. GLOWINSKI, B. MANTEL, J. PERIAUX, On the numerical simulation of incompressible viscous fluids modelled by the Navier-Stokes equations.Related domain decomposition methods, *Comptes-Rendus du Symposium sur la Modelisation Fine des Ecoulements*, Vol. 1, J. P. Benque ed., Presses de l'Ecole Nationale des Ponts et Chaussées, 1982, pp. 275-317.

13. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, P. PERRIER, G. POIRIER, Transonic flow simulation by flnite element and least square methods, « *Finite Elements in Fluids* », Vol. 4, R. H. Gallagher, D. H. Norris, J. T. Oden, O.C. Zienkiewicz eds., Wiley, Chichester, 1982, pp. 453-482.

14. R. GLOWINSKI, B. MANTEL, J. PERIAUX, P. PERRIER, O. PIRONNEAU, On an efficient new preconditioned conjugate gradient method. Application to the in core solution of the Navier-Stokes equations, « *Finite Elements in Fluids* », R.H. Gallagher, D. H. Norrie, J.T. Oden, O.C. Zienkiewicz eds., Wiley, Chichester, 1982, pp. 365401.

15. R. GLOWINSKI, B. MANTEL, J. PERIAUX, Numerical solution of the time dependent Navier-Stokes equations for incompressible viscous fluids by finite element and alternating direction methods, « *Numerical Methods in Aeronautical Fluid Dynamics* », P. L. Roe ed., Acad. Press, London, 1982, pp. 309-336.

16. Q.V. DINH, R. GLOWINSKI, B. MANTEL, J. PERIAUX, Approximate Solution of the Navier-Stokes Equations for Incompressible Viscous Fluids. Related Domain Decomposition Methods, *Numerical Methods*, Actes, Caracas, 1982, V.Pereyra, A. Reineza, Eds., Lecture Notes in Math, Vol. 1005, Springer-Verlag, Berlin, 1983, pp. 46-86.

17. R. GLOWINSKI, J. PERIAUX, O. PIRONNEAU, An efficient preconditioned conjugate gradient method. Application to the solution of nonlinear problems in Fluid Dynamics, « *Preconditioning Methods. Theory and Applications* », D. J. Evans, Ed., Gordon and Breach, 1983, pp. 463-508.

18. Q.V. DINH, R. GLOWINSKI, J. PERIAUX, Domain decomposition for elliptic problems, *Finite Elements in Fluids*, Vol. V, R. H. Gallagher, J. T. Oden, O.C. Zienkiewicz, T. Kawai, M. Kawahara eds., Wiley, Chichester, 1984, pp. 45-106.

19. Q.V. DINH, R. GLOWINSKI, J. PERIAUX, Solving Elliptic Problems by Do-main Decomposition Methods with Applications, *Elliptic Problem Solvers II*, G.Birkhoff, A. Schoenstadt, Eds., Academic Press, Orlando, 1984, pp. 395-426.

20. R. GLOWINSKI, B. MANTEL, J. PERIAUX, O. TISSIER, Finite element analysis of laminar viscous flow over a step by nonlinear least squares and alternating direction methods, in Analysis of Laminar Flow over a Backward Facing Step, K.Morgan, J. Periaux, F. Thomasset, Eds., *Notes on Numerical Fluid Mechanics*, Vol. 9, Vieweg, Braunschweig/ Wiesbaden, 1984.

21. M. O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, P. PERRIER, Numerical methods for the time dependent compressible Navier-Stokes equations, « *Computing Methods in Applied Sciences and Engineering VI* », R. Glowinski and J. L. Lions, eds., North-Holland, Amsterdam, 1984.

22. M. O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, Finite Element Methods for solving the Navier-Stokes Equations for Compressible Unsteady Flows*, « 9th International Conference on Numerical Methods in Fluid Dynamics »,* Soubbaramayer, J. P. Boujot eds., Lecture Notes in Physics, Vol. 218, Springer-Verlag, Berlin, 1985, pp. 115-120.

23. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, P. PERRIER, O. PIRONNEAU, G. POIRIER, Finite Element Methods for Transonic Flow Calculations, *Advances in Computational Transonics*, Vol. 4, W. G. Habashi, Editor, Pineridge Press, U. K., 1985, pp. 703-732.

24. R. GLOWINSKI, J. PERIAUX, Finite Element, Least Squares and Domain Decomposition Methods for the Numerical Solution of Nonlinear Problems in Fluid Dynamics, *« Numerical Methods in Fluid Dynamics »,* Como 1983, F. Brezzi ed., Lecture Notes in Mathematics, Vol. 1127, Springer-Verlag, Berlin, 1985, pp. 1- 114.

25. M. O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, P. PERRIER, Numerical Methods for Incompressible and Compressible Navier-Stokes Problems, *Finite Elements in Fluids*, Vol. 6, R. H. Gallagher, G. Carey, J. T. Oden, O.C. Zienkiewicz, eds., J. Wiley, Chichester, 1985, pp. 1-40.

26. M. O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, C. POULETTY, G. S. SINGH, Implicit and semi-implicit methods for the compressible Navier- Stokes equations, Proceedings of the 6th GAMM-Conference *Numerical Methods in Fluid Dynamics,* D. Rues, W. Kordulla, eds., Vieweg and Sohn, Braunschweig/ Wiesbaden, 1986, pp. 9-22.

27. M.O. BRISTEAU, J. PERIAUX, Finite Element Methods for the calculation of compressible viscous flows using self-adaptive mesh refinements. Lecture Notes in *Computational Fluid Dynamics*, Von Karman Institute for Fluid Dynamics, Rhode Saint-Genèse, Belgium, 1986

28. B. PALMERIO, V. BILLEY, A.DERVIEUX, J.PERIAUX, Self Adaptive Mesh Refinements and Finite Element Methods for Solving the Euler Equations, Proceedings of the *ICFD Conference on Numerical methods for Fluid Dynamics,* April 1-4, 1985, Reading, UK, Numerical Methods for Fluid Dynamics II, K.W. Morton, M.J. Baines, Eds., Clarendon, Oxford, 1986

29. Q. V. DINH, R. GLOWINSKI, J. PERIAUX, G. TERRASSON, On the coupling of incompressible viscous flows and incompressible potential flows via domain decomposition, Proceedings of Conference *« 10th International Conference on Numerical Methods in Fluids Dynamics »,* Pékin, 1986, F. G. Zhaung, Y. L. Zhu, eds. Lecture Notes in Physics, Springer-Verlag, Berlin, 1986, pp. 229-234.

30. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, P. PERRIER, O. PIRONNEAU, G. POIRIER, Transonic Flow and Shock Waves: Least-squares and Conjugate Gradient Methods, « *Finite Element Handbook »,* Section 4.3 de la Partie 3 H.Kardestuncer, D. H. Norrie eds., McGraw-Hill, New York, 1987, pp. 3.229 - 3.243.

31. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, H. VIVIAND, Presentation of Problems and Discussion from Results, *Numerical Simulation of Compressible Navier-Stokes Flows*, M. O. Bristeau, R. Glowinski, J. Periaux, H. Viviand, Eds.,Vieweg, Braunschweig/ Wiesbaden, 1987, pp. 1-40.

32. M. O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, C. POULETTY, Solution of the

Compressible Navier-Stokes Equations by least-squares and finite element methods, *« Numerical Simulation of Compressible Navier-Stokes Flows »,* M. O. Bristeau, R. Glowinski, J. Periaux, H. Viviand, Eds., Vieweg, Braunschweig / Wiesbaden, 1987, pp. 85-104.

33. R. GLOWINSKI, J. PERIAUX, Numerical Methods for Nonlinear Problems in Fluid Dynamics, *Supercomputing*, A. Lichnewsky, C. Saguez eds., North Holland, Amsterdam, 1987, pp. 381-479.

34. C. BEGUE, Q. V. DINH, B. MANTEL, J. PERIAUX, G. TERRASSON, B. CARDOT, F. EL DABAGHI, F. HECHT, R. MUNOZ, C. PAREZ, O. PIRONNEAU, M. ABDALAS, R. GLOWINSKI, Current progress on the numerical simulation of detached flows around airplanes, *Numerical Methods in Laminar and Turbulent Flows*, Vol. 5, Part 2, C. Taylor, W. G. Habashi, M. M. Hafez, Eds.,1987, pp.1887-1921.

35. Q. V. DINH, R. GLOWINSKI, J. PERIAUX, G. TERRASSON, On the Coupling of Viscous and Inviscid Models for Incompressible Fluid Flows via Domain Decomposition, Proceedings of the Conference *« Domain Decomposition Methods for Partial Differential Equations »*, R. Glowinski, G. H. Golub, G. Meurant, J. Periaux, Eds., SIAM, Philadelphia, 1988, pp. 350-369.

36. C. BEGUE, M.O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, Acceleration of the convergence for viscous flow calculations, *NUMETA 87*, Vol. 2, C. N. Pande, J. Middleton eds., Martinus Nighoff Publishers, Dordrecht, 1987, pp. T4/1 - T4 /20.

37. J .PERIAUX, Simulation d 'Ecoulements de Fluide en Elements Finis ; Application à l'Aéronautique et l'Espace., *Habilitation à diriger des recherches*, Spécialité Mathématiques, Mention : Analyse Numérique, Université Pierre & Marie Curie, Septembre1989

38. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Acceleration procedures for the numerical simulation of compressible and incompressible viscous flows*, Chapter 6 of Advances in Computational Nonlinear Mechanics*, CISM Courses and lecture 300, I.S. Doltsinis ed., Springer, Wien, 1989, pp. 197-243.

39. R.GLOWINSKI, J.PERIAUX, G.TERRASSON, Using Domain Decompositionin Coupling Models of Viscous and Inviscid Compressible Flows, Proceedings of the *3rd Int. Symp. On Domain Decomposition Methods for Partial Differential Equations*, SIAM, Houston, 1989.

40. M. MALLET, J. PERIAUX and B. STOUFFLET, Finite Element Methods for highly compressible Flows and related applications in Aerospace Engineering, Proceedings of the Conference ISCFD, Nagoya Trade & Industry Center, Nagoya, Japan,1989.

41. R. GLOWINSKI, J. PERIAUX, G. TERRASSON, On the coupling of viscous and inviscid models for compressible fluid flows via domain decomposition, Proceedings of the Conference *« Domain Decomposition Methods for Partial Differential Equations »*, T. F. Chan, R. Glowinski, J. Periaux, O. Widlund eds., SIAM, Philadelphia, 1990, pp. 64-97.

42. C. ATAMIAN, Q. V. DINH, R. GLOWINSKI, J. HE, J. PERIAUX, Control Approach to Fictitious-Domain Methods. Application to Fluid Dynamics and Electro-magnetics, Proceedings of the *« Fourth International Symposium on Domain Decomposition Methods for Partial Differential Equations »,* R. Glowinski, Y. A. Kuznetsov, G. Meurant, J.Periaux, O. B. Widlund, Eds., SIAM, Philadelphia, 1991,pp. 275-309.

43. R. GLOWINSKI, T. W. PAN, J. PERIAUX, M. RAVACHOL, A fictitious do-main method for the incompressible Navier-Stokes equations, *The Finite Element Method in the 1990's*, E. Oñate, J. Periaux, A. Samuelson, Eds., Springer-Verlag, Berlin, 1991, pp. 440-457.

44. R. GLOWINSKI, T.W. PAN, J. PERIAUX, A fictitious Domain Method for External Incompressible Viscous Flow Modeled by Navier Stokes Equations, Proceedings of the*"6th Domain Decomposition Conference in Applied Sciences",* 1992, Como, A. Quarteroni, J. Periaux, Y.A. Kuznetsov, O. Widlund, Eds, Contemporary Mathematics, 157, AMS, 1993.

45. L. C. COWSAR, E. J. DEAN, R. GLOWINSKI, P. LE TALLEC, C. H. LI, J. PERIAUX, M. F. WHEELER, Decomposition principles and their applications in scientific computing, in *Parallel Processing for Scientific Computing*, J. Dongarra, K. Kennedy, P. Messina, D. C. Sorensen, R. G. Voigt eds., SIAM, Philadelphia, 1992, pp. 213-237.

46. Q. V. DINH, R. GLOWINSKI, J. HE, V. KWOCK, T. W. PAN, J. PERIAUX, Lagrange multiplier approach to fictitious domain methods: application to fluid dynamics and electro-magnetics, Proceedings of the Conference on *Domain Decomposition Methods for Partial Differential Equations*, D. E. Keyes, T. F. Chan, G. Meurant, J. S. Scroggs, R. G.Voigt eds., SIAM, Philadelphia, 1992, pp. 151-194.

47. E. J. DEAN, Q. V. DINH, R. GLOWINSKI, J. HE, T. W. PAN, J. PERIAUX, Least squares/domain imbedding methods for Neumann problems: application to fluid dynamics, Proceedings of the Conference « *Domain Decomposition Methods for Partial Differential Equations* », D. E. Keyes, T. F. Chan, G. Meurant, J. S. Scroggs, R. G. Voigt eds., SIAM, Philadelphia, 1992, pp. 451-475.

48. M. O. BRISTEAU, R. GLOWINSKI, L. DUTTO, G. ROGE, On recent numerical simulations of compressible Navier-Stokes flows, *Numerical Simulation of Unsteady Flows and Transition to Turbulence*, O. Pironneau, W. Rodi, I. L. Ryhming, A. H. Savill, T. V. Truong eds., Cambridge University Press, 1992, pp. 444-472.

49. R. GLOWINSKI, J. PERIAUX, M. RAVACHOL, T. W. PAN, R. O. WELLS, X. ZHOU, Wavelet methods in Computational Fluid Dynamics, *Algorithmic Trends in Computational Fluid Dynamics*, M. Y. Hussainy, A. Kumar, M. D. Salas eds., Springer-Verlag, New York, N. Y., 1993, pp. 259-276.

50. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Using exact controllability to solve the Helmholtz equation at high wave numbers, *Mathematical and Numerical Aspects of Wave Propagation*, Chapter 12, R. Kleinman, Th. Angell, D. Colton, F. Santosa, I. Strakgold eds., SIAM, Philadelphia, Pennsylvania, 1993, pp. 113-127.

51. R. GLOWINSKI, T. W. PAN, J. PERIAUX, Fictitious domain methods for the Dirichlet problem and its generalization to some flow problems, *Finite Elements in Fluids, New Trends and Applications*, Part I, K. Morgan, E. Oñate, J. Periaux, J. Peraire, O. C. Zienkiewicz eds., Pineridge Press, Barcelona, 1993, pp. 347-368.

52. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Scattering waves using exact controllability methods, *AIAA 31st Aerospace Sciences Meeting*, Reno, Nevada, AIAA Paper 930460, 1993.

53. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Numerical simulation of high-frequency scattering waves using exact controllability methods, *Nonlinear Hyperbolic Problems: Theoretical, Applied and Computation Aspects*, A. Donato, F.Oliveri, Eds., Notes in Numerical Fluid Mechanics, Vol. 43, Vieweg,Branschweig, 1993, pp. 86-108.

54. M. O BRISTEAU, J. ERHEL, R. GLOWINSKI, J. PERIAUX, A time dependent approach to the solution of the Helmholtz equation at high wave numbers, Proceedings of the « *Sixth SIAM Conference on Parallel Processing for Scientific Computing* », R. F. Sincorec, D. Keyes, M. R. Lenzo, L. Petzold, D. A. Reed eds., SIAM, Philadelphia, Penn.,1993.

55. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A one shot domain decomposition/fictitious domain methods for the Stokes problem, *Advances in Finite Element Analysis in Fluid Dynamics-1993*, M. N. Dhaubhadel, M. S. Engelman, W. G. Habashi eds., ASME, Fairßeld, N. J., 1993, pp. 115-124.

56. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A fictitious domain method for unsteady incompressible viscous flow modeled by Navier-Stokes equations, *Domain Decomposition Methods in Science and Engineering*, A. Quarteroni, J. Periaux, Y.A. Kuznetsov, O. B. Widlund eds., AMS, Providence, R.I., 1994, pp. 421-431.

57. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, On the numerical solution of the Helmholtz equation at large wave numbers using exact controllability methods. Application to scattering, *Domain Decomposition Methods in Science and Engineering*, A. Quarteroni, J. Periaux, Y. A. Kuznetsov, O. B. Widlund eds., AMS, Providence, R.I., 1994, pp. 399-419.

58. H. Q. CHEN, R. GLOWINSKI, J. W. HE, A. J. KEARSLEY, J. PERIAUX, O. PIRONNEAU, Remarks on optimal shape design problems, *Frontiers of Computational Fluid Dynamics*, 1994, D. A. Caughey and M. M. Hafez, Eds., Wiley, Chichester, 1994, pp. 67-80.

59. M. O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, On the numerical solution of the Helmholtz equation at large wave numbers using exact controllability methods. Application to scattering, *Contemporary Mathematics*, Vol. 157, AMS, Providence, R.I., 1994, pp. 399-419.

60. B. STOUFFLET, J.PERIAUX, L.FEZOUI, A.DERVIEUX, Numerical Solution of 3-D Hypersonic Euler Flow around Space Vehicles using Adapted Finite Elements, *AIAA 25th Aerospace Sciences Meeting*, January 12-15, Reno, Nevada, AIAA Paper 87-0560, 1987

61. J.A DESIDERI, L.FEZOUI, N.GLINSKI, E. HETTENA, J.PERIAUX, B.STOUFFLET, Hypersonic Reactive Flow Computations around Space Vehicle Like Geometries*, AIAA 25th, Aerospace Sciences Meeting*, January 9-12, Reno, Nevada, AIAA Paper 89-0657

62. A. DERVIEUX, L. J.A. DESIDERI, L. FEZOUI, M. MALLET, J.PERIAUX, B.STOUFFLET, Finite Element Simulations of 3-D Hypersonic Flows around HERMES, Notes of the *2d Joint Europe-US Short Course in Hypersonics*, Colorodo Springs, 1989.

63. R. GLOWINSKI, T.W. PAN and J. PERIAUX, A fictitious Domain Method for Unsteady Incompressible Viscous Flow Modeled by the Navier Stokes Equations, Proceedings of the *" 6th Domain Decomposition Conference for Partial Differential Equations "*, Como, 1992, ASM, Providence, R.I., 1992.

64. F. CHALOT, J.M. HASHOLDER, M. MALLET, A. NAIM, J.A. NICOLAI, J. PERIAUX, P. PERRIER, P. ROSTAND, B. STOUFFLET, Finite Elements Methods for the Compressible Euler and Navier Stokes Equations with Chemistry. Application to Aerospace Engineering, Proceedings of the *Symposium IUTAM*, Marseilles, 1992.

65. M. MALLET J. PERIAUX, P. ROSTAND and B. STOUFFLET, Validation of Aerodynamic Simulation Methods for Hermes Space plane and Future Hypersonic Vehicles, *AIAA 4th Inter. Aerospace Planes Conference* Dec. 1-4 1992, Orlando, AIAA-92-5065.

66. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Numerical Simulation of High Frequency Scattering Waves using Exact Controllability Methods, *31th AIAA Aerospaces Aerosciences Meeting*, Reno, 1993.

67. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A One Shot Domain Decomposition/ Fictitious Domain Method for the Navier-Stokes Equations, *« Contemporary Mathematics »,* Vol. 180, AMS, Providence, R.I., 1994, pp. 211-222.

68. R. GLOWINSKI, T.W. PAN, J. PERIAUX, A one shot Domain Decomposition / Fictitious Domain Method for the Stokes problem, Proceedings of the "*ASME Conference",* New Orleans, LA, December 1993.

69. M.O. BRISTEAU, R. GLOWINSKI J. PERIAUX, Y. XIANG, Exact controllability and fictitious domain methods for solving the Helmholtz equation, Symposium Européen, " *Numerical methods in Electromagnetics",* Toulouse, November 1993.

70. M.O. BRISTEAU, R. GLOWINSKI, V. KWOK and J. PERIAUX, Exact Controllability methods for scattered waves by perfectly conducting and coated materials, Proceedings of the
"2nd Int. Conf. and Workshop on Approximations and numerical Methods for the solution of the Maxwell Equations", Washington D.C. October 25-29, 1993.

71. R. GLOWINSKI, T. W. PAN, J. PERIAUX, One shot Domain Decomposition / Fictitious Domain Methods for the parallel solution of the Navier Stokes Equations, Proceedings of the
" 7th Domain Decomposition Conference in Scientific and Engineering Computing", PennState, P.A. October 27-30, 1993, D.E. Keyes, J.Xu, Eds, Contemporary Mathematics, 180, AMS.

72. J. PERIAUX, High Compressible Flow Simulation for the Design of Aircraft and Space Vehicles : Finite Element Solution methods and Applications in Aerospace Engineering, " *19th ICAS Congress",* Anaheim, USA, September 18-23, 1994.

73. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Exact Controllability to solve the Helmholtz Equation with Absorbing Boundary Conditions, *« Finite Element Methods: Fifty Years of the Courant Elements »,* K. Krizek, P. Neittaanmäki, R.Stenberg, eds., Marcel Dekker, New York, N.Y., 1994, p. 75-93.

74. R. GLOWINSKI, T.W. PAN, J. PERIAUX, A one shot Domain decomposition /fictitious domain method for the solution of elliptic equations, Proceedings of *the Parallel CFD Conference: New Trends and Advance*s, A. Ecer, P. Lecas, J. Périaux, Eds., Elsevier, 1995.

75. M.O. BRISTEAU, R. GLOWINSKI, V. KWOK, J. PERIAUX, Combining Domain Decomposition and Exact Controllability Methods for the Computation of scattering Waves, Proceedings of *" 8th Domain Decomposition Methods Conference"*, R.Glowinski, J. Périaux, Z-C Shi, O. Widlund, Eds., John Wiley 1996.

76. J. PERIAUX, M. SEFRIOUI, B. STOUFFLET, B. MANTEL, E. LAPORTE, Robust Genetic Algorithms for Optimization Problems in Aerodynamic Design, *Lecture Notes of the EUROGEN 95 Short Course*, G. Winter, J. Périaux, M. Galan, P; Cuesta, Eds., John Wiley. 1995.

77. H.Q. CHEN, B. MANTEL, J. PERIAUX, M. SEFRIOUI, Genetic Methods for Optimization and Industrial Application, *Computational Fluid Dynamics Review 1995*, M. Hafez and K. Oshima, Eds, John Wiley, 1995.

78. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A One Shot Domain Decomposition / Fictitious Domain Method for the Solution of Elliptic Equations, *Parallel Computational Fluid Dynamics: New Trends and Advances*, A. Ecer, J. Hausen, P. Leca, J. Periaux, eds., North-Holland, Amsterdam, 1995, pp.

317-324.

79. R. GLOWINSKI, T. W. PAN, J. PERIAUX, Fictitious Domain / Domain Decomposition Methods for Partial Differential Equations, *« Domain-Based Parallelism and Problem Decomposition Methods in Computational Science and Engineering »,* Chapitre11, D. E. Keyes, Y. Saad, D. G. Truhlar, eds., SIAM, Philadelphia, 1995, pp. 177-192.

80. M. O. BRISTEAU, E. J. DEAN, R. GLOWINSKI, V. KWOK, J. PERIAUX, Application of Exact Controllability to the Computation of Scattering Waves, in Proceedings of *Control Problems in Industry*, I. Lasiecka and W. Morton, Eds., Birkhauser, Boston, (1995), pp.17-41

81. R. GLOWINSKI, A. J. KEARSLEY, T. W. PAN, J. PERIAUX, Fictitious domain method for viscous flow simulation, *Computational Fluid Dynamics Review 1995*, M. Hafez, K. Oshima, eds., J. Wiley, Chichester, (1995), pp.357-381.

82. R. GLOWINSKI, T. W. PAN, J. PERIAUX, One shot fictitious domain/ domain decomposition methods for three-dimensional elliptic problems. Parallel implementation on a KSR1 machine, in Proceedings of *Parallel Computational Fluid Dynamics: New Algorithms and Applications*, N. Satofuka, J. Periaux, A. Ecer, eds., Elsevier Science,Amsterdam, 1995, pp. 313-320.

83. M. SEFRIOUI J. PERIAUX, J.G. GANASCIA, Fast Convergence Thanks to Diversity, *Proceedings of Evolutionary Programming V*, 1996, Eds: L.J. Fogel, P.J. Angeline, and T. Bäck. MIT Press, pp. 313-321.

84. J. PERIAUX, M. SEFRIOUI, B. MANTEL, RCS multi-objective optimization of scattered waves by active control elements using Genetic Algorithms, Actes *ICARV 96 Symposium*, Singapore, December 1996.

85. R. GLOWINSKI, J. PERIAUX, M. SEFRIOUI, B. MANTEL, M.O. BRISTEAU, Optimal Backscattering of an Active Reflector by Means of Genetic Algorithms, in Proceedings of *« Computational Methods in Applied Sciences '96 »,* J.A. Desideri, C. Hirsh, P. Le Tallec, E. Oñate, M. Pandolfi, J. Periaux, E. Stein, eds., J. Wiley, Chichester, 1996, pp.251-257.

86. R. GLOWINSKI, T.W. PAN, J. PERIAUX, Fictitious Domain Methods for the Simulation of Stokes Flow Past a Moving Disk, *« ECCOMAS Computational Fluid Dynamics '96 »,* J.A. Desideri, C. Hirsh, P. Le Tallec, M. Pandolfi, J. Periaux, eds, J. Wiley, Chichester, 1996, pp. 64-70.

87. M.O. BRISTEAU, R. GLOWINSKI, J. PERIAUX, Wave Scattering Using Exact Controllability, in Proceedings of « *Numerical Methods in Engineering 96'* », J.A. Desideri, P. Le Tallec, E. Oñate, J. Periaux, E. Stein, Eds., J. Wiley, Chichester, 1996, pp. 97-103.

88. R. GLOWINSKI, T.W. PAN, J. PERIAUX, A Lagrange multiplier/fictitious domain method for the numerical simulation of incompressible viscous flow around moving rigid bodies: (I) case where the rigid body motions are known a priori*, C.R. Acad. Sc. Paris, T. 324, Serie I*, (1997), pp. 361-369.

89. M.O. BRISTEAU, E.J. DEAN, R. GLOWINSKI, V. KWOK, J. PERIAUX, Exact controllability and domain decomposition methods with non-matching grids for the computation of waves, *Domain Decomposition Methods in Sciences and Engineering*, R. Glowinski, J. Periaux, Z-C Shi and O. Widlund, Eds., J. Wiley, Chichester, 1997, pp.291-308.

90. M.O. BRISTEAU, V. GIRAULT, R. GLOWINSKI, T.W. PAN, J. PERIAUX, Y.XIANG, On a fictitious domain method for flow and wave problems, *Domain Decomposition Methods in Sciences and Engineering*,

R. Glowinski, J.Periaux, Z-C Shi and O. Widlund, Eds., J. Wiley, Chichester, 1997, eds., J. Wiley, Chichester, 1997, pp. 361-386.

91. R. GLOWINSKI, T. HESLA, D.D. JOSEPH, T.W. PAN, J. PERIAUX, Distributed Lagrange Multiplier Methods for Particulate Flows, *« Computational Science for the 21st Century »*, M.O. Bristeau, G. Etgen, W. Fitzgibbon, J.L. Lions, J. Périaux, M.F. Wheeler, eds., Wiley, Chichester, 1997, pp. 270-279.

92. R. GLOWINSKI, T.W. PAN, J. PERIAUX, Fictitious domain methods for imcompressible viscous flow around moving rigid bodies, in *« The Mathematics of Finite Elements and Applications, Highlight 1996 »,* J.R. Whiteman ed., John Wiley & Sons, Chichester, England, 1997, pp. 155-174.

93. R. GLOWINSKI, T.W. PAN, J. PERIAUX, Domain embedding methods for incompressible viscous flow around moving rigid bodies, in Proceedings of *« Domain Decomposition Methods and Related Topics »,* H. Imai, H. Koshigoe, M. Mori, N. Nakamura, M.Natori, eds., R.I.M.S. Lecture Notes 989, Kyoto University Press, Kyoto, Japan, 1997, pp. 1-17.

94. R. GLOWINSKI, B. MANTEL, T. W. PAN, J. PERIAUX, M. SEFRIOUI, Solution of CFD and CEM complex optimization problems with genetic algorithms and finite element methods, in Proceedings of *« Tenth International Conference on Finite Elements in Fluids »*, M Hafez, J. C. Heinrich ed., January 5-8, 1998, Tucson, Arizona, pp.297-308.

95. R. GLOWINSKI, T.W. PAN, T.I. HESLA, D.D. JOSEPH, J. PERIAUX, A fictitious domain method with distributed Lagrange multipliers for numerical simulation of particulate flow, in Proceedings *«Domain Decomposition Methods 10 »,* J. Mandel, C. Farhat, X.C. Cai, Eds., AMS, Providence, RI, 1998, 121-137.

96. R. GLOWINSKI, T.W. PAN, J. PERIAUX, Domain embedding methods for incompressible viscous flow around moving rigid bodies, *« Recent Developments in Domain Decomposition Methods and Flow Problems »,* H. Fujita, H. Koshigoe, M.Movi, M. Nakamura, T. Nishida, T. Ushijima eds., Mathematical Science and Applications, Vol. 11, Gakkotosho, Tokyo, 1998, pp. 34-51.

97. R. GLOWINSKI, T.W. PAN, J. PERIAUX, On a domain embedding method for a flow around moving rigid bodies, in Proceedings *« Domain Decomposition Methods in Sciences and Engineering, 9th International Conference »,* Bergen, Norway, P.E. Bjorstad, M.S. Espedal, D.E. Keyes eds., Domain Decomposition Press, Bergen, 1998, pp. 342-349.

98. J.W. HE, R. GLOWINSKI, M. GORMAN, J. PERIAUX, Some results on the controllability and the stabilization of the Kuramoto-Sivashinsky equation, *« Equations aux Dérivées Partielles et Applications ».* Articles dedicated to J.L. Lions, Gauthier -Villars/ Elsevier, Paris, 1998, pp. 571-590.

99. T. W. PAN, R. GLOWINSKI, T. I. HESLA, D. D. JOSEPH, J. PERIAUX, Numerical simulation of the Rayleigh-Taylor instability for particulate flow, in Proceedings of *« Tenth International Conference on Finite Elements in Fluids »,* M. Hafez, J.C. Heinrich, eds., January 5-8, 1998, Tucson, Arizona, pp.217-222.

100. T.W. PAN, V. SARIN, R. GLOWINSKI, A. SAMEH, J. PERIAUX, A fictitious domain method with distributed Lagrange multipliers for the numerical simulation of particulate flow and its parallel implementation, in Proceedings *« Parallel Computational Fluid Dynamics: Development and Applications of Parallel Technology »,* C.A. Lin, A. Ecer, N. Satofuka, P. Fox, J. Periaux, eds., North-Holland, Amsterdam, 1999, pp.467-474.

101. M.O. BRISTEAU, R. GLOWINSKI, B. MANTEL, J. PERIAUX, M. SEFRIOUI, Genetic Algorithms for Electro-Magnetic Backscattering Multiobjective Optimization, livre collectif *« Electromagnetic Optimization by Genetic Algorithms »,* Y. Rahmat-Samii, E. Michielssen, eds, J. Wiley, New-York, 1999, pp. 399-434.

102. J. W. HE, M. CHEVALIER, R. GLOWINSKI, R. METCALFE, A. NORDLAN- DER, J. PERIAUX, Drag reduction by active control for flow past cylinders, *Computational Mathematics Driven by Industry*, V. Capasso, H. Engl, J. Periaux, Eds., Lecture Notes in Mathematics, Vol. 1739, Springer-Verlag, Berlin, 2000,pp. 287-363.

103. R. GLOWINSKI, T. W. PAN, J. PERIAUX, A fictitious domain method for flow around moving airfoils: application to store separation, a collective book dedicated to late B. Mantel *« Innovative Tools for Scientific Computation in Aerospace Engineering »,* J. Periaux, P. Joly, O. Pironneau, E. Oñate eds., CIMNE, Barcelona, 2001, pp. 60-87.

104. J. W. HE, R. GLOWINSKI, R. METCALFE, J. PERIAUX, Active control for incompressible viscous fluid flow: application to drag reduction for flow past circular cylinders, *« Computational Methods for Control Applications »,* R. Glowinski, H. Kawarada, J. Periaux, Eds., Gakkotosho Co., Tokyo, 2002, pp. 233-292.

105. R. GLOWINSKI, T.W. PAN, J. PERIAUX, Distributed Lagrange multiplier/fictitious multi domain method for moving cylinders, in Proceedings of *« Domain Decomposition Methods 10 »,* J. Mandel, C. Farhat, X.C. Cai, Eds., AMS, Providence, RI, 1998, 121-137.

106. H. Q. CHEN, B. MANTEL, J. PERIAUX, M. SEFRIOUI, Genetic Algorithms for CFD, in Proceedings of *7th ISCFD Conference*, Beijing, Sept. 1997

107. B. MANTEL, J. PERIAUX, M. SEFRIOUI, B. STOUFFLET, J.A. DESIDERI, N. MARCO, Evolutionary Computational Methods for Complex Design in Aerodynamics*, 36th AIAA Aerospaces Aerosciences Meeting*, Reno, AIAA– 980222 paper

108. J. PERIAUX, M. SEFRIOUI B. MANTEL, GAs Multiple Objective Optimization Strategies for Electromagnetic Backscattering, in "*EUROGEN 97 Short Course*", Univ.Trieste, December 1997, D. Quagliarella, J.Periaux, C.Poloni and G. Winter, Eds, J.Wiley, 1998.

109. J. PERIAUX, J.L. LIONS, H.Q. CHEN, Decentralized Nash/GAs Optimization Strategies for the Solution of Multi-criteria Inverse Fluid Dynamics Problems, in Proceedings of " *CEDYAP Conference",* Las Palmas de Gran Canaria, G. Winter, Ed. September 21-24,1999.

110. N. MARCO, S.LANTERI, J.-A. DESIDERI, J. PERIAUX, A Parallel Genetic Algorithm for Multi-Objective Optimization in Computational Fluid Dynamics, in "*EUROGEN 99 Short Course*", Univ.Jyvaskyla, Finland, June1999, K. Miettinen, M. Makela, P. Neittaanmaki and J.Periaux, Eds, J.Wiley, 1999

111. C.H. CHEN, J.L. LIONS, J. PERIAUX, Virtual Control, Multi-criteria Equilibria and Domain Decomposition Methods via Genetic Algorithms, *C.R.A.S.* Paris, 2001

112. J. PERIAUX and H.Q. CHEN, Decentralized Optimization using Nash /GAs applied to Parallel CFD problems, in Proceedings of *ECCOMAS 2000 Conference*, Barcelona, September 11-14, 2000.

113. H.Q. CHEN, J. PERIAUX, A. ECER, Domain Decomposition Methods Using GAs and Game Theory for the Parallel Solution of CFD problems, in Proceedings of *" Parallel CFD 2001"Trends and Applications* : C.B. Jenssen, T. Kvamsdal, H.I. Andersson, B. Pettersen, A. Ecer, J.Periaux, N.

Satofuka, P. Fox, Eds, Trondheim, May 2000, pp 341-348

114. J. PERIAUX, B. MANTEL and HQ CHEN, Coupling least-squares and Genetic Algorithms for solving transonic flow problems, " *J. Survey on Mathematics for Industry",* H. Engl, Chief Editor, (2000),Vol.9, pp 159-166.

115. S. PEIGIN, B.MANTEL, J.PERIAUX S.TIMCHENKO, A.BORODIN, M. SEFRIOUI, Application of a Genetic Algorithm to a heat flux optimization problem*, J. Surv. on Math. for Industry"*, H. Engl, Chief Editor, (2000) Vol 9 : pp.235-245.

116. J-F. WANG and J.PERIAUX, Search Space Decomposition of Nash/Stackelberg Games using Gas for Multi-Point Design Optimization in Aerodynamics, in Proceedings of *"13th Domain Decomposition Methods Conference",* Lyon, France, M.Garbey, Y. Kuznetsov, J.Periaux, eds, CIMNE Barcelona, A series of Handbooks on Theory and Engineering Applications of Computational Methods, 2002.

117. E.J. WHITNEY, M.SEFRIOUI, K. SRINIVAS and J.PERIAUX, Advanced in hierarchical parallel genetic algorithms for aerodynamic shape optimization, in Proceedings of *"AFI − 2001 : the first International Symposium on Advanced Fluid Information",* October 2001, Sendai, Japan, International Journal of JSME.

118. J.F. WANG, J.PERIAUX, P.THOMAS, Parallel hierarchical Nash/Gas for lift optimization problems, in Proceedings of " *1st EUROGEN01 Conference on Evolutionary Methods for Design and Control in Industry",* Athens, September 2001, K. Giannakoglou, D.T. Tsahalis, J.Periaux, K.Papailiou and T. Fogarty, Eds, CIMNE Barcelona, A series of Handbooks on Theory and Engineering Applications of Computational Methods, 2002.

119. B. GALVAN, D. GREINER, J. PERIAUX, M. SEFRIOUI and G. WINTER, Parallel Evolutionary computation for solving complex CFD optimization problems: a review and some nozzle applications, in Proceedings of *" Parallel CFD02 Conference",* May 2002, Nara, Japan, Ecer, K. Matsuno, J.Periaux and N. Satofuka Eds, ELSEVIER, 2003

120. E. WHITNEY, L. GONZALEZ, K. SRINIVAS and J.PERIAUX, Multi-criteria Aerodynamic Shapes Design Problems in CFD using a Modern Evolutionary Algorithm on Distributed Computers, in Proceedings of " *ICCFD02 Conference",* K.Srinivas and S.W. Armfield, eds, Sydney, July 2002, Springer Verlag, 2003

121. J. PERIAUX, M.SEFRIOUI, E. WHITNEY, L. GONZALEZ, K. SRINIVAS and J.F. WANG, Evolutionary Algorithms, Game Theory and Hierarchical Models in CFD, Proceedings of the *"ICCFD02 Conference",* Sydney, Australia, July 2002, K.Srinivas and S.W. Armfield, eds, Springer Verlag, 2003

122. Z. TANG, J.A. DESIDERI, J.PERIAUX, Distributed Optimization using Virtual and Real Game Strategies for Aerodynamic Multi-Objective Design, in Proceedings of *"WEHSFF02 Conference",* Marseilles, France, April 2002, D.Zeitoun, J.Periaux, J.A. Desideri and M. Marini, Eds, CIMNE Barcelona, A series of Handbooks on Theory and Engineering Applications of Computational Methods, 2003

123. M. SEFRIOUI, E. WHITNEY, J.PERIAUX and K. SRINIVAS, EAs for multi-objective design Optimisation, in French Australian Workshop on *" Coupling of Fluids, Structures and Waves in Aeronautics",* Melbourne, Australia, 3-6 December, 2001, N.G. Barton, J. Periaux, Eds, Springer, 2003

124. E.J. WHITNEY, L.F. GONZALEZ, K. SRINIVAS, J. PERIAUX, M. SEFRIOUI, Adaptive Evolution Solution without Specific Knowledge: UAV Applications, in Proceedings of *"2d EUROGEN03 Conference on*

Evolutionary Methods for Design, Optimization and Control", G. Bugeda, J.A. Desideri, J.Périaux, M. Schoenauer and G. Winter, Eds, CIMNE Barcelona, A series of Handbooks on Theory and Engineering Applications of Computational Methods, 2003.

125. J.PERIAUX, M.SEFRIOUI, L.F. GONZALEZ, E.J. WHITNEY, K. SRINIVAS and K.C. WONG, Robust Evolutionary Methods for the Design Optimization of Manned and Unmanned Aircraft Systems, in Proceedings of *" SAROD-2003, Advanced in Applied Aerodynamics and Design of Aerospace Vehicles",* Biju Uthup, SR Mohan, Santhos P Koruthu, D. Koner Eds, Tata McGrawhill, Dec.2003.

126. R. GLOWINSKI J. PERIAUX and J. TOIVANEN, Time-Periodic Solutions of Wave Equation via Controllability and Fictitious Domain Methods", in Proceedings of *"Waves 2003 ",* G. Cohen and P. Neittaanmaki Eds, Jyvaskyla, Finland, June 2003.

127. L.F. GONZALEZ, E.J. WHITNEY, K.SRINIVAS, J.PERIAUX, Optimum Multidisciplinary and Multi Objective Wing Design using Evolutionary Techniques, in Proceedings of *"3rd Int. Conf. On Computational Fluid Dynamics (ICCFD03)",* Toronto, Canada, July 12- 16, to appear

128. A.CLARICH, V.PEDIRODA, C. POLONI, J.PERIAUX, Application of Game Strategy in Multi-Objective Robust Design Optimisation implementing self-adaptive Search Space Decomposition by Statistical Analysis, in Proceedings of *" ECCOMAS04 Conference",* Volume 2, Minisymposia and Special Technology Sessions, Jyvaskyla, Finland, P. Neittaanmaki, T. Rossi, D. Knoerzer, E.Oñate and J.Periaux, Eds, July 24-28 2004.

129. L.F. GONZALEZ, E.J. WHITNEY, K.SRINIVAS, J.PERIAUX, M. SEFRIOUI, A multi-objective Evolutionary technique for Inverse Viscous Aerodynamic Design, in Proceedings of *"ECCOMAS04 Conference",* Volume 2, Special Technology Sessions, Jyvaskyla, Finland, P. Neittaanmaki, T. Rossi, D. Knoerzer, E.Oñate and J.Periaux, Eds, July 24-28, 2004

130. L.F. GONZALEZ, E.J. WHITNEY, K.SRINIVAS, J.PERIAUX, Multidisciplinary Aircraft Design and Optimization using a Robust Evolutionary Technique with Variable Fidelity Models, in Proceedings of *" 10th AIAA/SSMO Multidisciplinary Analysis and Optimization Conference",* Albany, New York, USA, 30 Aug.- 1 Sept. 2004.

131. Z. TANG, J.-A. DESIDERI, J. PERIAUX, Multi Objective Inverse Problem in Aerodynamics using Adjoint Method and Game Theory, in *Proceedings CD-ROM of the 6th World Congress on Computational Mechanics in conjonction with the second Asian –Pacific Congress on Computational Mechanics*, Z.H. Yao, M.W. Yuan and W.X. Zhong, Eds, Tsinghua University Press and Springer, Beijing, September 2004.

132. J. PERIAUX, E. WHITNEY, F. GONZALEZ, Multi Point Evolutionary Optimization without Specific Knowledge and Applications to the Design of UAV Systems, in Proceedings of *" International Conference on Control, Partial Differential Equations and Scientific Computing, a conference dedicated to late Prof. J.- L. Lions",* Beijing, P.R. of China, September 13-16, 2004,

133. H.Q. CHEN, R.GLOWINSKI, J.PERIAUX, J.TOIVANEN, Domain Embedding/Controllability Methods for the Conjugate Gradient Solution of Wave Propagation Problems, in Proceedings of the *Conference on Domain Decomposition Methods in Science and Engineering*, Berlin, July 2003, R. Kornhuber, R.Hoppe, J.Periaux, O.Pironneau, O. Widlund J.Xu, Eds, Lecture Notes in Computational Science and Engineering 40, Springer, 2004, pp. 537-546.

134. E. WHITNEY, J.PERIAUX, F. GONZALEZ,K. SRINIVAS, Practical Aerodynamic Design for UAVs using

Multicriteria Evolutionary Algorithms, VKI Lecture Course, *Notes in "Optimization Methods & Tools for Multicriteria/Multidisciplinary Design, Appliucations to Aeronautics and Turbomachinery"*, J.Periaux and K. Giannakoglou Directors of the Course, H.Deconinck and G. Degrez, Co-ordinators of the Course, Rhodes Saint-Genèse, Belgium, November 15-19, 2004.

135. F. GONZALEZ, J.PERIAUX, K.SRINIVAS, E. WHITNEY, "Multi Point Evolutionary Optimization without Problem Specific Knowledge and Applications to UAVs Systems,, *in Proceedings of "International Conference on Control, Partial Differential Equations and Scientific Computing",* Eds Zhong-Ci Shi, Chi-Wang Shu, J.Periaux, September 13-16, 2004, to appear

136. A. CLARICH, V.PEDIRODA, C.POLONI, J.PERIAUX, Comparison between Game Theory Methodologies in Robust Design Optimization, in Proceedings of ECCOMAS Thematic Conference on *"Computational Methods for Coupled Problems in Science and Engineering ",* MS 15, Eds. M. Papadrakakis, E. Oñate, B. Schrefler, May 25-28 2005, Santorini, Greece

137. L. GONZALEZ, E.J. WHITNEY, K. SRINIVAS, J. PERIAUX, M. SEFRIOUI, CFD Design in Aeronautics Using a Robust Multilevel Parallel Evolutionary Optimizer,, *in Proceedings of "International Conference on Control, Partial Differential Equations and Scientific Computing",* Eds A. Ecer, J.Periaux,N. Satofuka, B. Gonzalez and G. Winter, May 24-27, 2004, Las Palmas de Gran Canaria, Canaria Island, Spain, to appear

138. L.F. GONZALEZ, J.PERIAUX, E.J. WHITNEY, K.SRINIVAS, Evolutionary Algorithms for coupled Multi criteria Optimisation problems in Aeronautics, in Proceedings of ECCOMAS Thematic Conference on *"Computational Methods for Coupled Problems in Science and Engineering ",* MS 15, Eds. M. Papadrakakis, E. Oñate, B. Schrefler, May 25-28 2005, Santorini, Greece

139. J.PERIAUX, L.F. GONZALEZ, E.J. WHITNEY and K.SRINIVAS, MOO Methods for multidisciplinary Design using Parallel Evolutionary Algorithms, Game theory and Hierarchical Topology: Theoretical background (Part 1), a VKI Lecture Series Course on *"Introduction to Optimization and Multidisciplinary Design, Applications to Aeronautics and Turbomachinery ",* Eds. J. Periaux and H. Deconinck, March 6-10 2006, Von Karman Institute, Rhode Saint Genese, Belgique

140. J. PERIAUX, L.F. GONZALEZ, E.J. WHITNEY and K. SRINIVAS, MOO Methods for multidisciplinary Design using Parallel Evolutionary Algorithms, Game theory and Hierarchical Topology: Numerical aspects and Implementation of Model Test cases (Part 2), a VKI Lecture Series Course on *"Introduction to Optimization and Multidisciplinary Design, Applications to Aeronautics and Turbomachinery ",* Eds. J. Periaux and H. Deconinck, March 6-10 2006, Von Karman Institute, Rhode Saint genese, Belgique

141. J.PERIAUX, L.F. GONZALEZ, E.J. WHITNEY and K.SRINIVAS, MOO Methods for multidisciplinary Design using Parallel Evolutionary Algorithms, Game theory and Hierarchical Topology: Practical Application to the Design of UAV systems (Part 3), a VKI Lecture Series Course on *"Introduction to Optimization and Multidisciplinary Design, Applications to Aeronautics and Turbomachinery ",* Eds. J. Periaux and H. Deconinck, March 6-10 2006, Von Karman Institute, Rhode Saint genese, Belgique

142. J.PERIAUX, L.F. GONZALEZ, E.J. WHITNEY and K.SRINIVAS, A Generic Framework for the Design Optimization of Multidisciplinary UAV Intelligent Systems using Evolutionary Computing, *in 44th AIAA Meeting and Exhibit,* Reno,NV, USA, January 9-12, 2006

143. L.F. GONZALEZ, L.DAMP, J.PERIAUX and K.SRINIVAS, High Fidelity Multicriteria aero-structural optimization using Hierarchical Parallel Evolutionary Algorithms, *in ECCOMAS CSSM2006*, Lisbon,

Portugal, June 5-8, 2006

144. L.F. GONZALEZ, K.SRINIVAS, J.PERIAUX and E.WHITNEY, *Robust Multi criteria design optimization in Aeronautics using Evolutionary Algorithms and Game Theory*, CIMENICS, Santa Margerita Island, Venezuela, March 15-18, 2006

145. H.Q. CHEN,R. GLOWINSKI and J.PERIAUX, *A Domain Decomposition/Nash equilibrium Methodology for the Solution of Direct and Inverse Problems in Fluid Dynamics with Evolutionary Algorithms*, in Domain Decomposition Methods Conference 2006, Strobl/St. Wolgang, Austria, July 3-7, 2006,

146. L.F. GONZALEZ, J.PERIAUX, L. DAMP, E. WHITNEY and K.SRINIVAS, *Evolutionary Methods for Multidisciplinary Optimization applied to the Design of UAV Systems*, *in WCCM VII,* Keynote Lecture, Los Angeles, California, USA, WCCM CDrom, July 16-22, 2006

147. D.S.LEE, L.F. GONZALEZ, K.SRINIVAS, D.J.AULD, J.PERIAUX, *Multiobjective and Multidisciplinary Design and Optimization of wing blended body UCAVs via Advanced Evolutionary Algorithms, in 45th AIAA Meeting and Exhibit,*Reno,NV, USA, January 8-11, 2007

148. D.S.LEE, L.F. GONZALEZ, K.SRINIVAS, D.J.AULD, J.PERIAUX, *Multiobjective Robust Wing Design Optimization using Hierarchical Asynchronous Parallel Evolutionary Algorithms, in 45th AIAA Meeting and Exhibit,*Reno,NV, USA, January 8-11, 2007

149. TANG ZHILI, J.PERIAUX, *2-D viscous drag reduction problem with uncertainties on transonic flight conditions using Evolutionary optimization and unstructured meshes around aerodynamic shapes*, WEHSFF07, an ECCOMAS Thematic Conference, November 19-21, 2007, Moscow, Russia

150. R.GLOWINSKI, S. LAPIN, J.PERIAUX, P.M. JACQUART, H.Q. CHEN, *Domain Decomposition Methods for Wave Propagation in Heterogeneous Media,* in ENUMATH 2005 Proceedings, Santiago de Compostela, Spain, July 18-22, 2005, Springer,2007

151. R.GLOWINSKI, S. LAPIN, J.PERIAUX, P.M. JACQUART, H.Q. CHEN, *Domain Decomposition Methods for Wave Propagation in frequency dependent Media,* Aeronautics Minisymposium in ENUMATH 2007, Graz, Austria, September 10-14, 2007

152. F.L. GONZALEZ, L. DAMP, D. S. LEE, J. PERIAUX, and K. SRINIVAS, EUROGEN07, *Multi-Disciplinary Design Optimization of Unmanned Aerial Systems using Evolutionary Algorithms*, Jyvaskyla, Finland, June 11-13, 2007, CIMNE-Barcelona Publisher,2008

153. L. F. GONZALEZ, D.S LEE, J. PERIAUX, and K. SRINIVAS, Design Optimisation of UAVs Systems achieved on a Framework Environment via Evolution and Game Theory. Design Optimisation: Methods & Applications, CDRom of ERCOFTAC Workshop on Advanced Design, Las Palmas de Gran Canaria, Spain April 5-7, 2006.

154. J.PERIAUX, D.S.LEE, L.F.GONZALEZ and K.SRINIVAS, *Fast Reconstruction of Aerodynamic Shapes using Evolutionary Algorithms and Virtual Nash Strategies in a CFD Design Environment*, Special Issue Journal of Computational and Applied Mathematics(JCAM)

155. D.S. LEE, J. PERIAUX, L. F. GONZALEZ and K. SRINIVAS. *Game Strategies for Reconstruction and Multi-Objective Design Optimisation using Evolutionary Algorithms, 10 th International Conference*, in Parallel Problem Solving From Nature (PPSN 2008), Technische Universitat Dortmund, Germany. September 1317, 2008.,

156. D.S.LEE, L.F.GONZALEZ, K.SRINIVAS and J.PERIAUX, *Uncertainty based Multidisciplinary Evolutionary Optimization of Unmanned Aerial System (UAS) using HAPMOEA*, 5 th ICCFD, Seoul, Korea. July 7 – 11 2008.

157. D.S.LEE, L.F.GONZALEZ, K.SRINIVAS and J.PERIAUX *Uncertainty based Multidisciplinary Evolutionary Optimisation of Unmanned Aerial System (UAS),* 8 th World Congress on Computational Mechanics (WCCM8) and 5 th ECCOMAS 2008, Venice, Italy. June 30 – July 5 2008., STS 07 session,

158. K.SRINIVAS, D.S.LEE, L.F.GONZALEZ, and J.PERIAUX, *Uncertainty based Multidisciplinary Design Optimisation of Joint UCAV Using HAPMOEA*, Proceedings of WEHSFF Conference Moscow, Russia. 19-22. November 2007.

159. D.S.LEE, L.F.GONZALEZ, K.SRINIVAS and J.PERIAUX, *Multi-objective Robust Design Optimisation of Transonic Civil Transport using an Evolutionary Approach with Uncertainty*, 7th World Congress on Structural and Multidisciplinary Optimization, COEX, Seoul, Korea. 21 - 25 May 2007.

160. D.S.LEE, L.F.GONZALEZ, K.SRINIVAS and J.PERIAUX, *Multi-objective Robust Design Optimisation using Hierarchical Asynchronous Parallel Asynchronous Evolutionary Algorithms*, 45th AIAA Aerospace Sciences Meeting and Exhibit, Grand Sierra Resort Hotel, Reno, Nevada 8 - 11 Jan 2007.

161. D.S.LEE, L.F.GONZALEZ, K.SRINIVAS, D.J.AULD and J.PERIAUX, *MultiObjective and Multidisciplinary Design and Optimisation of Blended Wing-Body UCAV using Hierarchical Asynchronous Evolutionary Algorithms*, 45th AIAA Aerospace Sciences Meeting and Exhibit, Grand Sierra Resort Hotel (Formerly Reno Hilton)Reno, Nevada 8 -11 Jan 2007.

162. D.S.LEE, L.F.GONZALEZ, K.SRINIVAS and J.PERIAUX, *An Evolutionary Robust Optimization Method for the Wing Drag/RCS Reduction with Uncertain Operating Flight Condition Parameters. Applications to the design of UCAVs systems.*, Intelligent Computing in Mechanics, USNCCM9.Proceedings, San Francisco, USA, July 23-26, 2007.

163. L. F. GONZALEZ, J. PERIAUX and D.S. LEE, *MOO Methods for Multidisciplinary Design Using Parallel Evolutionary Algorithms, Game Theory and Hierarchical Topology: Theory (Part 1)),* Von Karman Institute (VKI) Lecture Series, Introductory Optimization Methods and Tools to Multi-criteria/Multidisciplinary Design with Applications to Aeronautics and Turbomachinery, June 2-6, 2008.

164. L. F. GONZALEZ, J. PERIAUX and D.S. LEE, *MOO Methods for Multidisciplinary Design Using Parallel Evolutionary Algorithms, Game Theory and Hierarchical Topology: Numerical Implementation (Part 2),* Von Karman Institute (VKI) Lecture Series, Introductory Optimization Methods and Tools to Multi-criteria/Multidisciplinary Design with Applications to Aeronautics and Turbomachinery, June 2-6, 2008.

165. L. F. GONZALEZ, J. PERIAUX and D.S. LEE, *MOO Methods for Multidisciplinary Design Using Parallel Evolutionary Algorithms, Game Theory and Hierarchical Topology: Practical Application to the Design and Optimisation of UAV Systems (Part 3),* Von Karman Institute (VKI) Lecture Series, Introductory Optimization Methods and Tools to Multicriteria/Multidisciplinary Design with Applications to Aeronautics and Turbomachinery, June 2-6, 2008.

166. D.S. LEE, L.F. GONZALEZ, J. PERIAUX and K. SRINIVAS, *Evolutionary Optimization Methods with Uncertainty for Modern Multidisciplinary Design in Aeronautical Engineering*, Notes on Numerical Fluid Mechanics and Multidisciplinary Design (NNFM 100), 100 Volumes NNFM and 40 Years

Numerical Fluid Mechanics. Section 4.1

167. K. SRINIVAS, J. PERIAUX D.S.LEE and L.F. GONZALEZ, *Distributed Multidisciplinary Evolutionary Optimization Techniques with Uncertainties: A New Design Challenge in Aeronautics,* ECCOMAS – Multidisciplinary Jubilee Symposium., Vienna, Austria, February 18-20, 2009

168. TANG, J. PERIAUX, E. OÑATE, G. BUGEDA, Lift maximization with uncertainties on angle of attack for high lift devices optimization, *CIMNE report,* July 2007

169. D.S. LEE, L.F. GONZALEZ, K. SRINIVAS and J. PERIAUX, Uncertainty based Multidisciplinary Evolutionary Optimisation of Unmanned Aerial System (UAS) using HAPMOEA, *5th ICCFD, Seoul, Korea,* July 7 – 11 2008.

170. D.S. LEE, L.F. GONZALEZ, K. SRINIVAS and J. PERIAUX, Uncertainty based Multidisciplinary Evolutionary Optimisation of Unmanned Aerial System (UAS), *8th World Congress on Computational Mechanics (WCCM8) and 5th ECCOMAS 2008, Venice, Italy*, June 30 – July 5 2008.

171. D.S. LEE, L.F. GONZALEZ, K. SRINIVAS and J. PERIAUX, Uncertainty based Multidisciplinary Evolutionary Optimisation of Unmanned Aerial System (UAS), *8th World Congress on Computational Mechanics (WCCM8) and 5th ECCOMAS 2008, Venice, Italy,* June 30 – July 5 2008.

172. D.S. LEE, L.F. GONZALEZ, J. PERIAUX and K. SRINIVAS, *Multi-fidelity Nash Game Strategies for Reconstruction Design in Aerospace Design Optimization*, 13th Australian International Aerospace Congress (AIAC13), Melbourne Convention Centre, Australia 9 - 12 March 2009.

173. D.S. LEE, L.F. GONZALEZ, J. PERIAUX, and E. OÑATE, *Effective Shape Reconstruction of A BI-NACA Aerofoil Using Advanced Evolutionary Algorithms Coupled to Game Strategies*. Int. Conf. on Computation Methods for Coupled Problems in Science and Engineering, COUPLED PROBLEMS 2009, Eds. B. Schrefler, E. Oñate, and M. Papadrakakis, Ischia Island, Italy, 8-10 June 2009.

174. D.S. LEE, L.F. GONZALEZ, J. PERIAUX and K. SRINIVAS, *Coupling Hybrid-Game Strategies with Evolutionary Algorithms for Multi-Objective Design Problems in Aerospace*. Evolutionary Methods for Design, Optimization and Control, EUROGEN 2009, Cracow, Poland, 15-17 June 2009.

175. D.S. LEE, J. PERIAUX and L.F. GONZALEZ, J. PERIAUX, *UAS Mission Path Planning System (MPPS) using Hybrid-Game Coupled to Multi-Objective Optimizer (DETC2009-86749).* Proceedings of 2009 Design Engineering Technical Conference & Computers and Information In Engineering Conference (ASME- IDETC/CIE 2009), San Diego, California*, USA*, August 30-September 2, 2009.

176. D.S. LEE, J. PERIAUX, L.F. GONZALEZ and K. SRINIVAS, *Hybrid-Game Strategies Coupled to Evolutionary Algorithms for Robust Multidisciplinary Design Optimization in Aerospace Engineering*, International Conference on Computational Design In Engineering (CODE 2009), Seoul, Korea, 3-6 December, 2009.

177. D.S. LEE, L.F. GONZALEZ, J. PERIAUX and G. BUGEDA, *Design Optimization using Advanced Artificial Intelligent System Coupled to Hybrid-Game Strategies,* 3rd International Conference on Artificial Intelligence in Science and Technology (AISAT09), University of Tasmania, Hobat, Australia, 22-25 November, 2009.

178. L.F. GONZALEZ, D.S. LEE, J. PERIAUX, and R.W. WALKER, *Optimal Mission Path Planning (MPP) For An Unmanned Aerial System*, 2009 Australian Conference on Robotics and Automation (ACRA2009)

University of Sydney, Sydney, Australia, 2-4 December, 2009.

179. 211. D.S. LEE, K. SRINIVAS, L.F. GONZALEZ, J. PERIAUX and S. OBAYASHI. *RobustMultidisciplinary Design Optimization Using CFD & Advanced Evolutionary Algorithms*, Computation Fluid Dynamics Review 2010, World Scientific, ISBN 978-981-4313-36-0. June 2010.

180. D.S. LEE, J. PERIAUX, L.F. GONZALEZ and E. OÑATE, *Hybridized Evolutionary Algorithms For Double Active Flow Control Bump Design Optimisation*, IEEE Transactions on Evolutionary Computation, TEVC- 00087-2010. (Under Review: Impact factor: 3.736)

181. D.S. LEE, J. PERIAUX, L.F. GONZALEZ, K. SRINIVAS and E.OÑATE, *Active Flow Control Bump Design Using Hybrid Nash Games Coupled to Evolutionary Algorithms,* ECCOMAS CFD 2010, J. C. F. Pereira and A. Sequeira (Eds), Lisbon, Portugal, 14–17 June 2010

182. D.S. Lee, J. Periaux, G. Bugeda, and E. Oñate, *Multi-Objective High Lift Systems Design Optimization using Hybridized MOGA*, Evolutionary Computation, MIT Press Journals (Impact Factor 2.63)

183. D.S. Lee, J. Periaux, L.F. Gonzalez, G. Bugeda, and E. Oñate, *Hierarchical Robust Design Optimization of Shock Control Bump using Multi-Objective Evolutionary Algorithms*, Expert Systems with Applications (Impact Factor 1.924)

184. D.S. Lee, J. Periaux, L.F. Gonzalez, K. Srinivas, and E. Oñate, *Robust Multidisciplinary Unmanned Aerial System Design Optimization.* International Journal of Structural and Multidisciplinary Optimization, Vol. 45, Issue 3, pages 433-450, March 2012. (DOI: 10.1007/s00158-011-0705-0).

185. D.S. Lee, L.F. Gonzalez, J. Periaux, *UAS Mission Path Planning System (MPPS) Using Hybrid- Game Coupled to Multi-Objective Design Optimizer.* Journal of Dynamic System, Measurement and Control – Transaction of ASME, ISSN 00220434,Vol. 132, Iss. 4. pp. 041005-1 -11, (DOI: http://dx.doi.org/10.1115/1.4001336) July 2010. (Impact factor: 1.393)

186. D.S. Lee, J. Periaux, L.F. Gonzalez, K. Srinivas, and E. Oñate, *Active Flow Control Bump Design Using Hybrid Nash-Game Coupled to Evolutionary Algorithms.* ECCOMAS CFD 2010, Lisbon Portugal, June 14- 17th 2010.

187. D.S. Lee, J. Periaux, K. Srinivas, L.F. Gonzalez, N. Qin and E. Oñate, *Shock Control Bump Design Optimization On Natural Laminar Aerofoil*. Proceedings of The 6th International Conference on Computational Fluid Dynamics (ICCFD6), ISBN: 3642178839 9783642178832, St. Petersburg Russia, July 12-16th 2010.

188. *Optimization Using Hybridized Evolutionary Algorithms*. Special Session (S035 – IEEE CEC): Evolutionary Computation in Aerospace Sciences, 2010 IEEE World Congress On Computational Intelligence (WCCI 2010), ISBN: 978-1-4244-6909-3, DOI: 10.1109/CEC.2010.5586379, Barcelona Spain, July 18-23rd 2010.

189. D.S. Lee, L.F. Gonzalez, R. Walker, J. Periaux, and E. Oñate, *Reduction Environmental Effect Of Civil Aviation Through Multi-Objective Flight Plan Optimization*. The 9th World Congress on Computational Mechanics and 4th Asian Pacific Congress on Computation Mechanics (WCCM/APCOM 2010), IOP Conf. Series: Materials Science and Engineering 10, DOI: 10.1088/1757-899X/10/1/012197, Sydney Australia, July 19 – 23, 2010

190. D.S. Lee, J. Periaux, *Distributed Evolutionary Optimization using Game Strategies: Theoretical & Numerical Aspects and Applications*, European Research Community On Flow, Turbulence And Combustion (ERCOFTAC) – Design Optimization: Methods and Applications, EADS-CASSIDIAN, Manching, Germany, 15-16 November 2011.

191. D.S. Lee, J. Periaux, G. Bugeda, E. Oñate, *Multi-Objective High Lift Systems Design Optimization using Hybridized Evolutionary Algorithm with Nash-Games,* International Conference on Evolutionary and Deterministic Methods for Design, Optimization and Control with Applications to Industrial and Societal Problems, CIRA Capua, Italy, 14-16 September, 2011.

192. D.S. Lee, J. Periaux, L.F. Gonzalez, E. Oñate, *Coupling Hybrid-Game Strategies with Particle Swarm Optimization for Multi-Objective High Lift Systems Design Optimization*, IV International Conference on Computational Methods for Coupled Problems in Science and Engineering (COUPLED PROBLEMS 2011), Kos Island, Greece, 20-22 June, 2011.

193. D.S. Lee, J. Periaux, Design Optimisation with Advanced Evolutionary Algorithms and Game Strategies: Progress and Challenges in Aeronautics, ECCOMAS Thematic Conference: Computational Analysis and Optimization (CAO2011), Jyvaskyla, Finland, 9-11 June, 2011.

194. H. Wang, D.S. Lee, J. Periaux, and H.Q. Chen, *CFD Inverse Problems Solved by Hybrid Mesh/Mesless Methods using EAs and Nash Games on Multi-element Airfoils in Aerodynamics*, ECCOMAS Thematic Conference: International Conference on Adaptive Modeling and Simulation (ADMOS2011), Paris, France, 6-8 June, 2011.

195. D.S. Lee, J. Periaux, E. Oñate, L.F. Gonzalez, *Advanced Computational Intelligence System for Inverse Aeronautical Design Optimization*, International Conference on Advanced Software Engineering (ICASE-11), Proceedings of the 9th IEEE International Symposium on Parallel and Distributed Processing with Applications Workshops, ISPAW 2011 - ICASE 2011, SGH 2011, GSDP 2011, pp. 299-304, ISBN (978-1-4577-0524-3), DOI (10.1109/ISPAW.2011.46), Busan, Korea, 26-28 May, 2011.

196. D.S. Lee, J. Periaux, L.F. Gonzalez, G. Bugeda, E. Oñate, *Hierarchical Robust Design Optimization of Shock Control Bump Devices for Airfoil Drag Reduction*, In (editor: Tuncer, I.H.) ECCOMAS CFD & Optimization, ISBN/ISSN: 978-605-61427-4-1, Paper No. 2011-1103, Antalya, Turkey, 23-25 May, 2011.

197. G. Bugeda, D.S. Lee, J. Periaux, J. Pons-Prats, E. Oñate, *Stochastic Robust MDO for Aerial Vehicle Design Optimization*, NATO Research and Technology Organisation (RTO) Applied Vehicle Technology (AVT) Panel Workshop "Virtual Prototyping of Affordable Military Vehicles Using Advanced MDO", Sofia, Bulgaria, 16-18 May, 2011.

198. D.S. Lee, G. Bugeda, J. Periaux, E. Oñate, *Robust Active Shock Control Bump Design Optimization using Parallel Hybrid-MOGA*, The 23rd International Conference on Parallel Computational Fluid Dynamics 211, Barcelona, Spain, 16-20 May, 2011.

199. D.S. Lee, J. Periaux, L.F. Gonzalez, E, Oñate and N. Qin, *Adaptive Wing/Aerofoil Design Optimization Using MOEA Coupled to Uncertainty Design Method*. The 49th AIAA Aerospace Science Meeting including the New Horizons Forum and Aerospace Exposition, AIAA 2011-1132, Orlando, Florida

U.S., Jan. 4 -7 2011.

200. D.S. Lee, J. Periaux, L.F. Gonzalez, E. Oñate, *Robust Aerodynamic Design Optimization of Morphing Aerofoil/Wing using Distributed MOGA*, International Council of Aeronautical Sciences (ICAS 2012), Brisbane, Australia, 23-28 September, 2012.

201. D.S. Lee, J. Periaux, G. Bugeda, and E. Oñate, *Design Optimization of Morphing UAV Aerofoil/Wing using Computational Intelligence System coupled Game Strategies*, ECCOMAS 2012, Vienna Austria, 10- 14 September 2012.

202. D.S. Lee, K. Srinivas, J. Periaux, E. Oñate, *Shock-Free Aerofoil/Wing Design Optimization via Morphing Techniques: Leading and Trailing Edge Deformation*, 7th International Conference on Computational Fluid Dynamics, Big Island of Hawaii, 9-13 July, 2012.

203. D.S. Lee, J. Periaux, L.F. Gonzalez and G. Bugeda, *Multi-Objective Design Optimization of Morphing UAV Airfoil/Wing using Hybridized MOGA*, 2012 IEEE World Congress on Computational Intelligence, Brisbane, Australia, 10-15 June, 2012.

204. D.S. Lee, J. Periaux, G. Bugeda and E. Oñate, *Computational Intelligence System for Single and Multi-Objective Design Problems in Aeronautics, in S*pecial Session Intelligent Systems, 10th World Congress on Computational Mechanics, Sao Paulo, Brazil, 8-13 June, 2012.

205. H. Espinosa, D.S. Lee, R. Codina, J. Periaux, *Unsteady Aerodynamic Design Optimization of Multi-Element High Lift System using Advanced MOGA*, 3rd International Conference on Engineering Optimization (EngOpt2012), Rio de Janeiro, Brazil 1-5 July 2012

206. D.S.C. Lee, J.Periaux, Sung Wook Lee*, Fast Nash Hybridized Evolutionary Algorithms for Single and Multi-Objective Design Optimization in Engineering,* Modeling, Simulation and Optimization for Science and Technology, a Conference dedicated to the 75 th anniversary of Prof. Roland Glowinski, W. Fitzgibbon, Y.A. Kuznetsov, P. Neittaanmaki, Y. O.Pironneau (Eds), ECCOMAS - Springer, in Computational Methods in Applied Sciences, 2014

207. D. Greiner, J. Périaux, J.M. Emperador, B. Galván, G. Winter; *A Study of Nash-Evolutionary Algorithms for Reconstruction Inverse Problems in Structural Engineering*, EUROGEN 2013, Las Palmas de Gran Canaria, Spain, October 7-9, Springer-ECCOMAS, Computational Methods in Applied Science, to appear, 2014

208. Hong WANG, Hong Quan CHEN and Jacques Periaux, GAs and Nash GAs Using a Fast Meshless Method for CFD Design, in Numerical Methods for Differential Equations, Optimization and Technical Problems, Dedicated to Prof. P. Neittaanmaki, Springer 2013

209. D. Greiner, J.Periaux, J.M. Emperador, B. Galvan, An Hybrid Nash Genetic Algorithm for reconstruction Inverse Problems in Structural Engineering, Reports of the MIT Department, Series B. Scientific Computing, N0. B 5/2013, University of Jyvaskyla, 2013

210. Leskinen, H. WANG, J.Periaux, Increasing parallelism of Evolutionary Algorithms by Nash Games, in Design Inverse Flow Problems, in Engineering Computations 30 (4), 581-600, 2013

211. D. Greiner, JM. Emperador, B. Galvan, G. Winter, J. Periaux, Optimum Structural design using Bio-

inspired search methods : a survey and Applications, a AIAA book on Computational Intelligence in Aerospace Sciences, 2014.

212. J.Periaux, F. Gonzalez and Dongseop Chris Lee, *Evolutionary Optimization and Game Strategies for Advanced Design : applications to Aeronautics*, Springer ISCAS, 2015.

213. M. Cochez, J.Periaux, V. Terziyan and K. Kamlyk, *Evolutionary Cloud for Cooperative UAV Coordination,* Report of the MIT Department, Series C Software and Computational Engineering, N° C1/2014, University of Jyvaskyla, 2014.

214. J.Periaux and D. Greiner, *An efficient Parallel Nash-Genetic Algorithm for solving Inverse Problems in Structural Engineering,* S. Reipin, P. Neittaanmaki, T. Tuovinen (Eds), a Springer –ECCOMAS book dedicated to the 70th anniversary of Prof. N. Banichuk, MMOM 2014 Conference, 2015

215. Dong Seop Chris Lee, Jacques Periaux, *Greening the Aircraft with Airfoil/Wing Design Optimization using Morphing Techniques and Advanced Multi Objective Genetic Algorithms,* Springer Book of the «Coupled Problems 2013 Conference « dedicated to Prof. Eugenio Oñate for his 60th anniversary, 2014

216. J.Periaux, L.F. Gonzalez and D.S. Lee, *« Hybridized Evolutionary Optimization with Game Strategies for Multidisciplinary Design in Aeronautics : Theoretical and Applications ",* Lectures Notes of the VKI Course on Introductory Methods and Tools for Multi disciplinary design in Aeronautics and Turbomachinery, T. Verstraete and J.Periaux (Eds), Rhodes St Genese, Belgium (April 7-11, 2014)

217. J.Periaux, L.F. Gonzalez and D.S. Lee, *« Hybridized Evolutionary Optimization with Game Strategies for Multi Objective, Multidisciplinary Design. Applications to Aeronautics and UAVs,* Lectures Notes of the VKI Course on Introductory Methods and Tools for Multi disciplinary design in Aeronautics and Turbomachinery, T. Verstraete and J.Periaux (Eds), Rhodes St Genese, Belgium (May 23-27, 2016)

218. J. Periaux, D. Greiner, " *AN EFFICIENT PARALLEL NASH -GENETIC ALGORITHM FOR SOLVING INVERSE PROBLEMS IN STRUCTURAL ENGINEERING*" ; in: S. Repin, P. Neittaanmäki, T. Tuovinen (Eds). Mathematical Modeling and Optimization of Complex Structures. Computational Methods in Applied Sciences Series, Vol. 40, pp. 205-228, 2016

219. D. Greiner, J. Periaux, J. M. Emperador, B. Galván, G. Winter, *A Study of Nash -Evolutionary Algorithms for Reconstruction Inverse Problems in Structural Engineering"*, In: D. Greiner. B. Galvan, J. Periaux, N. Gauger, K. Giannakoglou, G. Winter (Eds.), Advances in Evolutionary and Deterministic Methods for Design, Optimization and Control in Engineering, 2015.

220. Yongbin Chen, Zhili Tang, Lianhe Zhang, Jacques Periaux, *Multi Objective Shape Optimization of a Natural Laminar Flow and an Active Control Bump at transonic regimes Using Evolutionary Algorithms and Pareto Games,* NLFA Elsevier, 2016

221. Jordi Pons-Prats, Gabriel Bugeda, Francisco Zarate, Eugenio Oñate and Jacques Periaux, *Applying Multi-objective Robust Design Optimization Procedure to the Route Planning of a Commercial Aircraft*, in Computational Methods and Models for Transport, New Challenges for the Greening of Transport Systems, Pedro Diez, Pekka Neittaanmaki, Jacques Periaux Tero Tuovinen and Olli Bräysy

editors, Computational Methods in Applied Sciences, ECCOMAS -Springer series, vol.45, 2018

222. Chen Y., Tang Z., Periaux J., Jianda S., *Drag Reduction of NLF Airfoils by Evolutionary Shape Design Optimisation with Pareto Games using Trailing Edge Devices*, Greiner D., Asensio M.I., Montenegro R., Editors, Numerical Simulation in Physics and Engineering: Trends and Applications, Lecture Notes of the XVIII 'Jacques-Louis Lions' Spanish-French School, SEMI-SIMAI Springer series, Vol. 24, 2021

223. Jacques Periaux,Gabriel Bugeda, Hong Quan Chen, Yongbin Chen, Luis Felipe Gonzalez, David Greiner, Dong Seop C. Lee, Jyri Leskinen, Jordi Pons Prats, Mourad Sefrioui, Karkenhalli Srinivas, Tang Zhili, Jin Wang, Eric Whitney, Yao Zheng., "30 Years of progress in Single/Multi-disciplinary Design Optimization with Evolutionary Algorithms and Game Strategies. A Data Repository of Applications in Aeronautics and Civil Engineering", invited article submitted in Springe- Eccomas series, Progress in Scientific Computing for Industry and Society, dedicated to Prof. P. Neittaanmaki 70th anniversary, March 2022

CV Jacques Periaux, Paris, March 18, 2022