

Curriculum Vitae  
**Professor Dimitris Drikakis**

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## Prof Dimitris Drikakis, MEng, PhD, FRAeS, CEng

University of Strathclyde, James Weir Bld, JW6.04, 75 Montrose Str., Glasgow G1 1XJ, UK

PROFESSIONAL EXPERIENCE*		
07/2015 - 07/2017 -	<ul style="list-style-type: none"><li>• <b>Professor of Engineering Science</b></li><li>• <b>Executive Director, Global University Partnerships (US &amp; Far East)</b></li><li>• <b>Executive Director, Strathclyde Space Institute</b></li><li>• Co-Director of a new Institute of Autonomous Systems and Robotics</li></ul>	University of Strathclyde, Glasgow, UK
07/2015 - 06/2017 07/2016 - 06/2017	<ul style="list-style-type: none"><li>• <b>Executive Dean of the Faculty of Engineering</b></li><li>• <b>Associate Principal</b></li></ul>	
2003 - 2015	<ul style="list-style-type: none"><li>• <b>Professor of Fluid Mechanics and Computational Science</b></li></ul>	Cranfield University, UK
2013 - 2015	<ul style="list-style-type: none"><li>• <b>Head, Institute of Aerospace Sciences<sup>1</sup></b></li><li>• Director of Research (School of Aerospace, Transport &amp; Manufacturing)</li></ul>	
2012 - 2013 2005 - 2010	<ul style="list-style-type: none"><li>• <b>Head, Department of Engineering Physics</b></li><li>• <b>Head, Department of Aerospace Sciences</b></li></ul>	
2011 - 2012	Founding Director, Computation-based Science and Technology Research Centre	Cyprus Institute <sup>2</sup>
2001 - 2003	<ul style="list-style-type: none"><li>• <b>Professor of Fluid Mechanics</b></li></ul>	Queen Mary, University of London, UK
1999 - 2001	<ul style="list-style-type: none"><li>• Reader in Computational Fluid Dynamics</li></ul>	
1995 - 1999	Lecturer in Mechanical Engineering	UMIST <sup>3</sup> , UK
1993 - 1995	<ul style="list-style-type: none"><li>• Team Leader, Computational Aerodynamics Group</li></ul>	University of Erlangen-Nuremberg, Germany
1992 - 1993	<ul style="list-style-type: none"><li>• Research Scientist</li></ul>	
1988 - 1991	<ul style="list-style-type: none"><li>• Research and Teaching Assistant</li></ul>	National Technical University of Athens, Greece
*Information on Leadership and impact is provided on pages 3 to 6		

## EDUCATION

1982 --1987	Diploma in Mechanical Engineering (MEng)	National Technical University of Athens (NTUA), Greece
1988 --1991	PhD in Computational Fluid Dynamics (high-speed flows)	NTUA <sup>4</sup>

## MAJOR AWARDS

2014	<b>The Innovator of the Year Award</b> by The Innovation Institute for a new generation carbon capture technology that uses carbon nanotubes for filtering out carbon dioxide and other gases at low or zero energy cost.
2014	<b>Technical Achievement Award</b> at the International Conference on Mathematical Problems in Engineering, Aerospace and Sciences.
2008 - 2014	<b>William Penney Fellowship</b> , awarded twice (2008 & 2011), by the UK Atomic Weapons Establishment (AWE plc) in recognition of my contribution to compressible turbulent flows. The award is offered to world-renowned subject matter experts in scientific or engineering fields.

## HONORARY & INVITED POSITIONS

<sup>1</sup> Formerly Division of Engineering Sciences.

<sup>2</sup> In partnership with NCSA (National Centre for Supercomputing Applications) of the University of Illinois at Urbana-Champaign

<sup>3</sup> University of Manchester Institute of Science and Technology (UMIST), which since 2003 is *The University of Manchester*.

<sup>4</sup> Scientific Collaboration with Deutsche Aerospace.

2004 - 2007	Honorary Professor	City University, London, UK
2003	Visiting Scholar	Isaac Newton Institute for Mathematical Sciences, University of Cambridge
2003 -	Honorary Professor	St Andrews Centre for Plastic Surgery and Burns Broomfield Hospital, UK
2000 - 2001	Visiting Professor	University of Marseille, France

## SUMMARY OF RESEARCH IMPACT

I am an expert in fluid mechanics, computational fluid dynamics (CFD), and nanoscale fluid/solid interfaces. I have been active in both fundamental and applied research over a period of 30 years and my work has been key to resolving fundamental issues across a diverse spectrum of engineering science problems and industries. My long-term aspiration is to make research contributions of ground-breaking nature, which encompass both intellectual excellence and impact on industry and the society. My research work has directly influenced areas as diverse as nuclear deterrence, aerodynamic design, and a new generation gas filtration nanotechnology. Evidence of research impact includes:

- Research on compressible turbulent mixing and the development of multi-scale methods has reduced the computational uncertainty in the modelling and simulation used by the Atomic Weapons Establishment (**AWE plc**) to support the safety and performance of nuclear weapons.
- Developed multi-scale methods for solid/solid and fluid/solid interfaces that couple continuum and molecular dynamics codes, which provide new insights that inform model development at **AWE plc**.
- Contributed to the understanding of efficient heat transfer technologies in Fusion Engineering at the **UK Atomic Energy Authority**.
- Developed high-fidelity computational fluid dynamics (CFD) methods that have had a diverse impact across a range of industries, and are now employed by the German Aerospace Agency (**DLR**) CFD code, which is used by **Airbus** and its contractors; Los Alamos National Laboratory (**LANL**); the Japan Aerospace Exploration Agency (**JAXA**), the French Commissariat à l'Énergie Atomique (**CEA**); as well as many academic groups worldwide.
- Invented a Carbon Nanotubes Gas Filter for CO<sub>2</sub> filtration (**UK Patent 2479257-A, US Patent 20130042762 A1, China Patent CN102892479**) and awarded the Innovator of the Year Award (2014) by The Innovation Institute.
- Shed light on the aerodynamics of the thrust vectoring mechanism of aerospace systems and guided engineering design decisions, using high-fidelity fluid dynamics simulation methods (sponsored by **BAE Systems, MBDA**).
- Advanced the predictive capabilities of near wall turbulence and its effects on acoustic fatigue on hypersonic vehicles (sponsored research through the **US Air Force Office of Scientific Research**) and established the first International Aerospace Symposium on Acoustic Fatigue to be held in Glasgow in September 2017.
- Developed advanced modelling capabilities for the evaluation of the effectiveness of Nitrogen Enriched Air sparging for removing water from the aircraft fuel, and provided recommendations to industry with respect to health-and-safety and environmental issues associated with the release of fuel to the environment (**Eaton Aerospace Ltd on behalf of Airbus**).
- Research on high-resolution CFD, in the framework of Large Eddy Simulation, around Royal Navy Ships led for first time to the realistic (time-accurate) definition of ship/helicopter operating limits, thus enabling experienced RAF pilots to decide if it is possible to land on a ship in a given weather condition (sponsored by **UK MoD/DSTL**).
- Established (2017) the Academic Advisory Panel of the new £180million **UK's Oil and Gas Technology Centre (OGTC)** to act as high-level guide to OGTC Leadership Team on matters relating to academic research and its industrial impact in order to enhance effectiveness of OGTC engagement with relevant applied academic research and knowledge transfer to industry.
- Completed the supervision of **45 PhD and 24 MSc by Research students, and mentored 19 postdoctoral fellows**. All my former students now hold positions in academia and major industries around the world.
- Published as a sole author, as well as jointly with my PhD students, post-doctoral researchers and industrial collaborators, 164 journal and 240 conference publications and edited book chapters, as well as 2 books. **My h-index is 34 (Scopus) and 42 (Google Scholar)**.
- Since 2004 I won as a Principal Investigator research projects funded from a range of sources, including Research Councils, European Union, Industry and Government, totaling approximately £8m. A list of industrial collaborations can be found on page 7.
- Since 2010, I have given **13 keynote lectures** at international conferences and **19 invited lectures** at conferences, universities and research organisations.

- **Conference Chair** of three International Conferences: i) 13<sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing that involves National Nuclear Research Labs from the UK (AWE), France (CEA), and the USA (LANL & LLNL); ii) The 29th International Conference on Parallel Computational Fluid Dynamics, Glasgow, 2017; iii) The 1st International Aerospace Symposium on Acoustic Fatigue, Glasgow, 2017.
- **Member of the SU2 team at Stanford University** (Dept of Aeronautics and Astronautics) contributing to the development of the open source code SU2 with respect to compressible flows  
[https://su2code.github.io/teams/US\\_Team.html](https://su2code.github.io/teams/US_Team.html).

## LEADERSHIP

### *University of Strathclyde (2015 - )*

- *Associate Principal*  
Responsible to the Vice-Chancellor

*Summary of the role:* I have a University-wide portfolio aiming to support the growth and sustainability of the University across the four Faculties: Science, Engineering, Business, Humanities & Social Sciences, with specific objectives: i) to deliver tangible improvements in the University's financial performance, through international student recruitment and research income growth; and ii) create sufficient headroom for strategic investment over the medium to long term.

- *Executive Dean (Engineering)*  
Responsible to the Vice-Chancellor

*Summary of the Role:* Provide strategic leadership of the Faculty of Engineering and ensure that i) the Faculty maintains and develops its exceptional national and international profile; ii) the efficient and effective management of the Faculty's resources in the provision of teaching and learning, research, knowledge exchange and internationalisation activities. The Executive Dean is a member of the University Executive and, as such, a member of the senior management team responsible for development of the University Strategy.

*Faculty of Engineering:* The Faculty of Engineering is the largest engineering Faculty in Scotland and one of the largest in the UK. It is renowned both in the UK and overseas for its research and strong industry links. The Faculty has a £103 million turnover<sup>5</sup>, 850 staff and more than 5,500 students. The Faculty covers all the major academic disciplines and comprises eight leading departments:

- Architecture
- Biomedical Engineering
- Chemical and Process Engineering
- Civil and Environmental Engineering
- Design, Manufacture and Engineering Management
- Electronic and Electrical Engineering
- Mechanical and Aerospace Engineering
- Naval Architecture, Ocean and Marine Engineering

and, additionally, major University Industrial Research Centres:

- Advanced Forming Research Centre
- Power Networks Demonstration Centre
- Advanced Nuclear Research Centre
- Oil & Gas Institute, and
- Maritime and Safety Research Centre.

### *Key Responsibilities*

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<sup>5</sup> The University of Strathclyde as a whole had a total annual turnover (2015-16) of ~£280 million.

- Provide the Faculty with clear academic leadership and strategic direction.
- Actively engage in external networks and public bodies, both national and international, to ensure the Faculty and the University are up-to-date and abreast with external opportunities and challenges and are in a position of significant influence in the sector.
- Continue to develop and raise the Faculty's and the University's national and international profile within academic, policy-making and industrial fora, with charities, trusts and foundations and with high-profile individuals.
- Oversee the further development of research and knowledge exchange (industry-facing) activity in the Faculty.
- Continue the growth of the Faculty's commercial and internationalisation activities.
- Lead on a cohesive and ambitious vision for the Faculty, which is aligned with the University's broader strategic vision, mission and values.
- Ensure the effective and efficient management of the Faculty's resources and finances to ensure the enhancement of the quality of the Faculty's teaching and learning, research and knowledge exchange.
- Participate effectively as a member of the senior management of the University and lead on specific university-wide projects as requested by the Vice Chancellor.
- Fully engage with staff and students of the Faculty through effective communication mechanisms.
- Provide an academic environment in which student learning can thrive, and the quality of the student experience can be enhanced.
- Represent the University's Values across the Faculty and university-wide in order to lead, develop and motivate Heads of Department and all Faculty staff.
- Through regular university-wide interaction, to actively identify and nurture academic and research talent internally in order to retain it, and externally in order to attract it to Strathclyde.
- Control Faculty budgets and work closely with both the Chief Operating Officer and Chief Financial Officer to ensure that the Faculty planning processes and resources (financial, staffing, physical and IT infrastructure) are aligned with strategic objectives.
- Ensure that the teaching and professional activities of the areas of the Faculty are professionally met and in line with the internal and external quality assessment framework.
- Ensure compliance with the University's policies and procedures including Health and Safety at Work regulations, Equality and Diversity, Data Protection and other managerial responsibilities towards all staff and students.

The Executive Dean is the Chair of the Faculty Executive Team, Faculty Planning and Resource Committee and Faculty Management Team, as well as a Member of the Executive Boards of the University's Industrial Research Centres.

- Executive Director of Global University Partnerships (US and Far East)

As an Executive Director of Global University Partnerships, I report to the Vice Chancellor and I am responsible for the strategic university partnerships with major universities in the US and Far East. The current portfolio includes Stanford University, New York University, Caltech, Hong Kong University of Science and Technology, MIT, and Nanyang Technological University (Singapore). My role is to maintain and further develop Strathclyde's international profile through the above partnerships, while providing support to the academics involved to build grant winning, joint publications and collaborative activities/events.

- Executive Director of the Strathclyde Space Institute

The Strathclyde Space Institute (SSI) is a pan-university institute, involving the Engineering, Science, Humanities and the Business faculties, and its research activities have a target horizon of more than 50 years, while deploying practical solutions, over a wide range of Technology Readiness Levels to respond to the needs of today. My role as an Executive Director of the SSI is to foster and coordinate the development of space science and engineering at Strathclyde and support the growth of the space sector in Scotland and the UK. My vision of the Institute is to expand on key long term strategic areas of research that require a cross-disciplinary approach bridging the gaps between science, engineering and societal changes. Therefore, the activities of SSI are central to the vision of the University of Strathclyde to play a key role in the space sector in Scotland and the UK. My strategy is to implement both a bottom up and a top down approach to research and development whereby the bottom up approach is

curiosity driven and aims at the development of disruptive ideas with long term applicability, while the top down approach is driven by market needs and aims at developing solutions with a more immediate application.

- Co- Director of the Robotics and Autonomous Systems Institute

My role as a Co-Director of the newly established Robotics and Autonomous Systems Institute is to provide an overall structure and strategic leadership through alignment of the Strathclyde University activities in the above sector; provide a framework for teaching and training activities; promote more efficient use of resources; maximise our national and International visibility in Robotics and Autonomous systems; further develop the engagement with our Industry partners and funding bodies; and promote internal collaborative research leading to increased volume and quality of research outputs.

**Cranfield University (2003 - 2015)**

*Head of Academic Departments (Aerospace Science & Engineering Physics):* I was responsible to the Pro-Vice Chancellor.

*Summary of the role:* Provide strategic leadership in all the academic activities of the Department; managing staff and financial resources; foster excellence in teaching and research; establish new Academic Programmes of Study and Continuing Development Courses; re-organise the Department’s research and administration; manage the refurbishment of facilities and establishment of new laboratories used for teaching and research; represent and promote externally the Department and Cranfield University; facilitate the development of collaboration strategies and partnerships with industry and academia worldwide; contribute to the management and development of the School as a member of the School’s Executive Team and the University’s Senior Management Team.

*Director of Research (School of Aerospace Transport & Manufacturing):* I was responsible to the Pro-Vice Chancellor.

*Summary of the Role:* Provide input to the Research Strategy of the University; responsible for leadership and management of the School’s (Aerospace, Transport & Manufacturing) Research and Innovation, including regulations for the academic and administrative processes for the management of all research students of the School; co-ordinate the School’s preparations for external research peer review exercises; co-ordinate Corporate/School Research initiatives; responsible for the activities of the Doctoral Training Centres; enhance the quality of the research supervision and assessment, and disseminating best practice; ensure the achievement of an excellent research environment. I was a member of the School’s Executive Management Team, the University’s Senior Management Team and the University’s Research Committee. The School had an annual turnover of £45 million and a research budget of £17 million.

**BOARDS, MAJOR COMMITTEES, DIRECTORSHIPS**

2017 -	UK Oil & Gas Technology Centre	Academic Advisory Board
2005 - 2015	AWE-Cranfield	Board of Management
2013 - 2016	European Aeronautics Science Network	Board of Directors & Scientific Advisor
2014 - 2016	Japan-Europe Aerospace Research and Technology Co-operation	Advisory Board
2012 -	European Commission	Expert Evaluator and Panel Member
2013 -	European Research Council	Expert Evaluator and Panel Member
2015	National Nuclear Security Administration, Department of Energy, USA	Expert Evaluator
2010 - 2013	American Institute of Aeronautics and Astronautics	Fluid Dynamics Technical Committee
2004 -	Osborne Reynolds Awards	Scientific Committee Member
2004 -	Engineering and Physical Sciences Research Council	Peer-Review College
2015 -	Specialist Gas Separation Ltd	Director

*Membership on International Conference Committees is presented on pages 13 and 14.*

## FELLOWSHIPS, MEMBERSHIPS AND PROFESSIONAL SOCIETIES

Fellow	Royal Aeronautical Society (RAeS)
Fellow	Institute of Nanotechnology (IoN) (2004-2015)
Senior Life Member	American Institute of Aeronautics and Astronautics (AIAA)
Life Member	American Physical Society
Member	American Society for Mechanical Engineers
Member	American Nano Society
Member	European Research Community on Flow, Turbulence and Combustion
Member	European Fusion Education Network
Chartered Engineer	Engineering Council, UK
Business Fellow	London Technology Network (2000-2003)

## SELECTIVE (PAST & PRESENT) COLLABORATIONS WITH INDUSTRY AND MAJOR FUNDING BODIES<sup>6</sup>

- BAE Systems
- Atomic Weapons Establishment
- EPSRC
- European Space Agency
- AgustaWestland
- Commercial Aircraft Corporation of China (COMAC)
- UK Atomic Energy Authority (UKAEA)
- MBDA
- Lockheed Martin
- Chemring Defence
- Airbus Defence and Space Group
- Jaguar Land Rover
- US Air Force
- German Aerospace Agency (DLR)
- Aircraft Research Association (UK)
- NASA Ames
- Tendeka (Swellfix Ltd)
- Oil & Gas Institute, UK
- Rolls-Royce
- ITER (France)
- Reaction Engines
- SAFRAN Turbomeca
- Redring Xpelair Group
- MagnaParva Ltd
- Ministry of Defence
- European Union
- Los Alamos National Lab
- Lawrence Livermore National Lab
- Commissariat a l'Energie Atomique
- BHR Ltd
- QualityPark AviationCenter GmbH
- TEKEVER Group
- Xchanging Solutions
- Eaton Aerospace

## EDITORSHIPS

The Aeronautical Journal	Associate Editor	Royal Aeronautical Society
Journal of Fluids Engineering	Associate Editor (2004-2014)	American Society for Mechanical Engineers
Journal of Computational and Theoretical Nanoscience	Associate Editor	American Scientific Publishers
Nanotechnology Reviews	Associate Editor (2012-2013)	De Gruyter
Encyclopedia of Aerospace Engineering	Associate Editor	Wiley
International Journal of Aviation Technology, Engineering and Management	Associate Editor	IGI

## EDITORIAL BOARDS

Physics of Fluids, International Journal for Numerical Methods in Fluids, Energies, Journal of Nuclear Medicine & Radiation Therapy, International Journal of Applied Engineering Research, Mathematics Applied in Science and Technology, Journal of Nanotechnology, Research Letters in Nanotechnology, Journal of Nanotechnology: Nanomedicine & Nanobiotechnology, Computation (MDPI), Research in Applied Mathematics, Journal of Astrophysics & Aerospace Technology, International Journal of Mechatronics and Automotive Research (IJMAR), FELIP International Journal on Engineering Analysis, Simulation and Additive Manufacturing, American Research Journal of nanotechnology

## EVALUATOR, FUNDING BODIES

<sup>6</sup> Collaborations in my capacity as University Professor.

- Engineering and Physical Sciences Research Council (UK)
- European Commission (EU, FP7 & H2020)
- European Research Council
- Finnish Academy of Science
- Fund for Scientific Research (Belgium)
- Natural Sciences & Engineering Research Council (Canada)
- National Research Fund (Qatar)
- National Council for R&D, Romania
- Leverhulme (UK)
- Nuffield Foundation (UK)
- Russian Science Foundation

#### NATIONAL AND INTERNATIONAL THINK TANKS/ASSOCIATIONS/CONSORTIA

2009-2013	Bridging Applied Nano-Technologists	UK
2009-2018	UK Turbulence Consortium	UK
2009	Government Think Tank of Fluid Dynamics in Performance Sport	UK
2006 -- 2010	Management Committee, European Co-operation in the Field of Scientific and Technical Research in HPC and Large Eddy Simulation Methods for Advanced Industrial Design	EU
2005 -- 2008	National Physical Laboratory (NPL) Steering Panel on Dynamic Measurements	UK
1995 -- 1999	Joint co-ordination with Prof Brian Launder of the European Research Community on Flows, Turbulence and Combustion (ERCOFTAC) Association, UK-North Pilot Centre	UK

#### PhD Students (completion date in brackets)

#### Master of Science by Research

Em Carousos (active)	A.Baranda Inok (2012)	Z. Malick (2010)	N. Papantoniou (2017)
Kevin Singh (active)	B. Obadia (2012)	N. Epiphaniou (2010)	P.Aguado Lopez (2014)
M.Papanikolaou (2017)	Z. Rana (2012)	M. Porton (2010)	D.Nakos (2014)
C. Barmparousis (2015)	D. Sourmaidou (2012)	P. Tsoutsanis (2010)	M.Picciani (2014)
M. Frank (2015)	P. Barton (2011)	I. Kokkinakis (2009)	A.Grammatikopoulos (2013)
J. Appleyard (2014)	M. Benke (2011)	J. Lechuga (2009)	T.Natarajan (2013)
M.Probyn (2014)	M. Lai (2011)	S. Loiodice (2009)	D.Toufexis (2013)
I. Zissimos (2014)	A. Milonas (2011)	A. Mosedale (2009)	M.Sartzetaki (2012)
M.Kio (2014)	J. Milnes (2011)	Z. Zachariadis (2009)	L. Gerousi (2012)
K. Karantonis (2013)	E. Quaranta (2011)	M. Hahn (2008)	A.Voskaki (2012)
L. Konozy (2013)	C. Papachristou (2011)	M. Kalweit (2008)	C.Liang (2011)
D.Mantzalis (2013)	Y. Shimada (2011)	S. Patel (2008)	L. Brondolo (2011)
A. Mihaiescu (2013)	C. Vamvakoulas (2011)	B. Thornber (2008)	C. Milionis (2009)
T. Oggian (2013)	S. Tissera (2011)	P. Neofitou (2001)	Alan Baldwin (1998)
A. Antoniadis (2013)	N. Asproulis (2010)	A. Bagabir (2000)	Juan Gonzalez (1998)
		A. Kani (2000)	Wim Lefebvre (1998)
		G. Barakos (1999)	M. Zohdi (1998)
			N. Kokkonidis (1996)
			Nick van Maale (1996)
			Alex Griffith (1997)
			Eva Arenas Pinilla (1997)
			Katrien Van den Broeke (1997)
			L. Temmerman (1996)
			I. Triantafyllos (1996)



I am an experienced lecturer (30 years of experience) and have prepared and delivered a number of different courses to Aerospace and Mechanical Engineering students both at undergraduate (BEng and MEng) and postgraduate (Master) levels at the University of Manchester, Queen Mary, Univ. of London, Cranfield Univ. and Univ. of Erlangen-Nuremberg. Due to the multi-disciplinary character of my education and research, I can teach a wide range of courses. I have offered courses covering the whole spectrum from introductory to research levels. In almost all of my courses, I have prepared original slides that became available to the students. The most defining characteristic of my teaching style is the direct and informal interactions that I have with my students, as well as linking the taught material to engineering applications. I have known many of my students personally, and I frequently advised them in the context of their career choices. In all of my classes, I have always received excellent student feedback.

Furthermore, I have extensive experience in establishing new Master programs. At Cranfield University I established the MSc in Computational Fluid Dynamics and the MSc in Autonomous Vehicles Dynamics and Control, which attracted several international students. These MSc Courses also attracted strong industrial interest, which led to sponsored studentships and employment opportunities for graduates.

#### University of Strathclyde

- Initiated a new MSc in Autonomous Systems and Robotics
- Co-director of the Biofluid Mechanics MSc

#### Cranfield University

- Courses I have taught:
  - Advanced and Classical Turbulence Modelling
  - Fluid Mechanics and Heat Transfer
  - MSc group projects
  - CFD for Aerospace Applications
  - Micro/Nano Flows
  - CFD for Automotive Flows
- Established new MSc Programmes in
  - Computational Fluid Dynamics and
  - Autonomous Vehicles Dynamics and Control

supported by several industrial sponsors.

- Director of Cranfield Aerospace Doctoral Training Centre (2008-2010).

#### Other courses I have taught

#### Queen Mary, University of London

- Computational Fluid Dynamics
- Stability and Control of Aircraft
- Advanced Aerodynamics

#### University of Manchester (UMIST)

- Computational Fluid Dynamics
- Fluid Mechanics
- Heat Transfer
- Thermodynamics
- Engineering Design

#### University of Erlangen-Nuremberg

- Computational Fluid Dynamics
- Heat Transfer
- Fluid Mechanics
- Parallel Computing

#### Short Courses

- Introduction to Godunov Methods, Oxford
- Heat Transfer and Fluid Flow Studies using Parallel Computing, Delft Univ.
- 7<sup>th</sup> and 8<sup>th</sup> Biennial Colloquia on CFD, UMIST
- Turbulence: Principles, Models, and Numerical Methods, University of Erlangen-Nuremberg
- NUMET'94 Numerical methods for the Computation of Flows and Heat Transfer Problems, University of Erlangen-Nuremberg.
- Efficient Flow Simulations through New Numerical Methods and Parallel

(Selective) Industrial short courses	<ul style="list-style-type: none"> <li>Computing, University of Erlangen-Nuremberg</li> <li>Jaguar Land Rover: Fluid Mechanics and Computational Fluid Dynamics</li> <li>COMAC: Aerodynamics, Computational Fluid Dynamics</li> <li>MWH: CFD for Industry an Executive Overview</li> <li>Large Eddy Simulation Short Course for Industry, jointly with F. Grinstein (Los Alamos National Lab) and N. Georgiadis (NASA Glenn)</li> </ul>
External Examiner	<ul style="list-style-type: none"> <li>External Examiner of Master of Science Programmes at Imperial College (2006-2010), University of Southampton (2006-2010), University of Manchester (2014 - 2018), Brunel University (2012 – 2016) and PhD examiner at several universities in the UK</li> </ul>

## KEYNOTE AND INVITED PRESENTATIONS

2018	<b>Keynote</b> at GCFD 2018	International Conference on Green Power Technology and Computational Fluid Dynamics	Cambridge, UK
2017	Lecture in Fluid Mechanics	UK Atomic Energy Authority, Culham Science Centre	Oxford, UK
2017	Lecture in Fluid Mechanics	National University of Singapore	Singapore
2017	Lecture in Fluid Mechanics	University of Oxford	Oxford, UK
2017	<b>Plenary</b> , First World Congress on Condition Monitoring	ILEC Conference Centre	London, UK
2017	Lecture in Fluid Mechanics	Universitat Politècnica de Catalunya (UPC)	Barcelona, Spain
2017	Lecture in Fluid Mechanics	Nanyang Technological University	Singapore
2016	<b>Keynote</b> International Workshop on Recent Advances in Numerical Methods for Hyperbolic Conservation Laws and Nonlinear Time Dependent Partial Differential Equations in Honour of the 70th Birthday of Prof. Dr. Dr. hc. Eleuterio F. Toro, OBE	University of Trento	Italy
2016	<b>Keynote</b> , Workshop on “Hybrid Simulation Methods in Fluid Dynamics: Models, Software, and Applications”	Technische Universität München	Munich, Germany
2016	<b>Keynote</b> , Multiphase CFD Modelling	Institution of Mechanical Engineers	London, UK
2015	Clarendon Lab, Department of Physics	University of Oxford	UK
2015	European Workshop on High Order Nonlinear Numerical Methods for Evolutionary PDEs: Theory and Applications	University of Trento	Italy
2014	<b>Keynote</b> , 4th Micro and Nano Flows Conference		London, UK
2014	<b>Keynote</b> , 11th International Conference of Condition Monitoring and Machinery Failure Prevention Technologies ( <b>Selected as the Best Conference Paper</b> )	British Institute of Non-Destructive Testing and US Society for Machinery Failure Prevention Technology	Manchester, UK
2014	<b>Keynote</b> , 10th International Conference on Mathematical Problems in Engineering, Aerospace and Sciences	Narvik University, Embry-Riddle Aeronautical University	Narvik, Norway
2014	International Meeting of Specialists on Heat Transfer to Fluids at Supercritical Pressure	University of Manchester	Manchester, UK
2014	High-Order and Multi-Scale Methods for Flight Physics	NASA Ames Research Centre, Advanced Supercomputing	CA, USA

2014	3 <sup>rd</sup> International Workshop on Computational Experiments in Aeroacoustics	Division M.V. Keldysh Institute of Applied Mathematics	Svetlogorsk,Russia
2012	<b>Keynote</b> , Flying Test Beds for Novel Aircraft Configurations for Future Air Transport	European Commission, Aeronautics	Brussels, Belgium
2013	<b>Annual Keynote Lecture</b> , Flying Concepts and Computational Science in Support of their Development	Airbus Group	Bavaria, Germany
2013	9th UK - Japan Seminar on Multi-Phase Flow	UK-Japan Collaboration	London, UK
2013	<b>Keynote</b> , Mosaic3DX Conference	Microsoft research and Univ. of Cambridge	Cambridge, UK
2013	Invited Seminar, Computational Science Modeling for Biomedical Applications	Academy of Athens, Biomedical research Foundation	Athens, Greece
2012	<b>Keynote</b> , Young Researchers in Mathematics 2012 Conference	School of Mathematics, Bristol University	Bristol, UK
2012	3rd International EULAG Workshop on Eulerian/Lagrangian Methods for Fluids	Natural Environment Research Council, National Centre for Atmospheric Science	Loughborough, UK
2011	<b>Keynote</b> , EU Marie Curie Workshop on Combustion and Atmospheric dispersion	University of Cyprus	Cyprus
2011	International Workshop on Numerical Methods and Modelling for Compressible Multimaterial Flows and Mixing	Institute of Applied Physics and Computational Mathematics	Beijing, China
2011	3rd Micro and Nano Flows Conference		Thessaloniki, Greece
2011	High Performance Computing: Regional Developments and Future Opportunities	Joint HP-SEE, LinkSCEEM-2 and PRACE HPC Summer Training	Athens, Greece
2011	Frontiers of numerical jet modelling: from engineering to environmental flows	Royal Society Seminars	Kavli Centre, UK
2011	Invited seminar	Royal Society Research Fellow International Scientific Seminar	Cambridge, UK
2011	IChemE's Event: What next for fluid simulations of fluid mixing processes?	IChemE, King's College	London, UK
2010	<b>Keynote</b> , Mars Workshop on Drying Technologies	Mars GmbH	Verden, Germany
2010	Multiphysics and Unsteady Simulations for Aeronautical FlowsMUSAF Colloquium	Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique (CERFACS)	Toulouse, France
2010	Invited seminar	Aeronautics Department, University of Southampton	Southampton, UK
2010	7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics		Antalya, Turkey.
2009	Workshop on Modern Trends in Computational Aerodynamics (MTCA'09)	College of Engineering and Physical Sciences, University of Birmingham	Birmingham, UK
2009	Applied Mathematics Seminars	University of Birmingham	Birmingham, UK
2008	Royal Society Conference: Applied Large Eddy Simulation	Royal Society	London, UK
2009	EPSRC Workshop on Computational Fluid Dynamics	University of Warwick	Warwick, UK
2009	First International Conference on Computational Methods for Thermal Problems		Naples, Italy
2009	<b>Keynote</b> , Parallel CFD Conference	NASA Ames	CA, USA
2007	Second International Conference in	University of Cambridge	Cambridge, UK

2007	Advanced Computing and Simulation Invited Seminar	University of Southampton	Southampton, UK
2007	<b>Keynote</b> , World Engineering Congress		London, UK
2007	Colloquium on LES for External Aerodynamic Flows	Royal Aeronautical Society	London, UK
2006	Workshop on Classical versus Implicit Large Eddy Simulation	Oxford University	Oxford, UK
2005	Invited seminar on CFD and Multi-Scale Methods	BAE Systems	Bristol, UK
2003	ERCOFTAC Lecture	ETH	Zurich, Switzerland
2003	Conference on Multiphase Fluid Flows and Multi-Dimensional Hyperbolic Problems	Isaac Newton Institute for Mathematical Sciences, Cambridge University	Cambridge, UK
2001	Invited Seminar	University of Greenwich	London, UK
2000	ECCOMAS Conference, Forum on "Low Mach Number Flows"	ECCOMAS	Barcelona, Spain
2000	Forum on CFD in Aeronautics organised by European Union Industrial Directorate	ECCOMAS	Barcelona, Spain
2000	Sixth International Conference on Applications of High-Performance Computers in Engineering		Hawaii, USA
1999	International Conference "Godunov Methods: Theory and Applications	St Anne's College, Oxford University	Oxford, UK
1999	<b>Keynote</b> , IMechE Conference on CFD	Institution of Mechanical Engineers	London, UK
2001	Symposium on Modelling Biological Flows: Status & Challenges for the Future	Daresbury Laboratories	Daresbury, UK
2001	ECCOMAS CFD Conference	Swansea University	Swansea, UK
2001	Workshop on Five-Year Vision for Prediction and Control of Unsteady Flow Phenomena in Aerospace Aerodynamics	European Commission	London, UK
2001	Symposium on Advective Methods	British Applied Mathematics Colloquium	Reading, UK

*Invited/Keynote presentations before 2001:* Univ. of Greenwich, UK (2001), University of Marseille, France (2000), Isaac Newton Inst. (1999), Cambridge Univ. - DAMTP (1998, 1999), Imperial College - Aerospace Eng. Dept. (1998), Nottingham University - Mechanical Eng. Dept. (1998), BAe & ERCOFTAC UK South Workshop on Turbulence Structures (1998), University of Manchester - Physics Department (1997), University of Toronto - Institute of Aerospace Studies (1997), University of Waterloo (Canada) - Mech. Eng. Dept. (1997), CEC High-Performance Computing Conference (1996), MMU - Applied Mathematics Dept. (1996), GKN Westland Helicopters (1996), Glasgow University - Aerospace Eng. Dept. (1995), Technical University of Prague - Mechanical Eng Dept. (1995), Institut de Mecanique des Fluides de Toulouse (1994), Royal Institute of Technology, Sweden (1994), University of Freiburg (Germany) - Applied Mathematics Dept (1993), Daimler Benz Aerospace (DASA) (1993)

#### Scientific, Advisory and Organising Committees

2019	International Scientific Committee, ECCOMAS 5th Young Investigators Conference (1-6 Sept, 2019)	Kraków, Poland
2018	Astronomy and Space Science, October 18-19	Rome, Italy
2018	4th International Conference on Condensed Matter and Materials Physics, August 16-17, 2018 (Materials Physics 2018)	London, UK
2018	Programme Committee, EMN 2018, Energy Materials and Nanotechnology	International Conference Series, various countries
2018	Organising Committee, World Congress on Bioavailability & Bioequivalence: BA/BE Studies Summit, August 06-07, 2018	Tokyo, Japan

2018	Organising Committee, Pumps and Pipes (medical science meets oil industry meets space science" – called)	Aberdeen, Scotland, UK
2018	Organising Committee, International Conference on Computational and Structural Materials, November 7-8, 2018.	Atlanta, Georgia, USA
2018	Scientific Advisory Committee for International Conference on Condensed Matter and Material Science (ICCMS-2018)	Kuala Lumpur, Malaysia
2018	Global Summit on Physics	Madrid, Spain
2018	World Congress on Quantum and Nuclear Engineering (WCQNE-2018)	Madrid, Spain
2018	International Conference on Green Power Technology and Computational Fluid Dynamics, GCFD 2018	Cambridge, UK
2018	12th Edition of International Conference on Nanopharmaceutics and Advanced Drug Delivery.	Dublin, Ireland
2018	World Congress on Petroleum Processing and Industrial Chemistry, November 09-10, 2018, Birmingham.	Alabama, USA
2018	2nd International Conference on Medical and Health Informatics (ICMHI 2018)	Hong Kong
2018	16 <sup>th</sup> International Conference on Emerging Materials and Nanotechnology	London, UK
2018	4th International Conference on Physics	Berlin, Germany
2018	23 <sup>rd</sup> International Conference on Nanomaterials and Nanotechnology	London, UK
2018	Joint 6 <sup>th</sup> European Conference on Computational Mechanics (ECCM) and 7 <sup>th</sup> European Conference Computational Fluid Dynamics (ECFD)	Glasgow, UK
2017	<b>Chair</b> , 1st International Aerospace Symposium on Acoustic Fatigue	Glasgow, UK
2017	<b>Chair</b> of the International Parallel CFD Conference	Glasgow, UK
2017	CMBE17: International Conference on Computational and Biomedical Engineering	Pittsburgh, USA
2017	World Congress & Expo on Nanotechnology and Nanoengineering	Dubai, UAE
2017	3rd Int'l Conference on Microsystems and Nanotechnologies (ICMN 2017)	Shenzhen, China Shanghai, China
2016	2nd Int'l Conference on Microsystems and Nanotechnologies (ICMN 2016)	
2016	6 <sup>th</sup> EASN International Conference on Innovation in European Aeronautics Research.	Porto, Portugal
2015	IMA Conference on Numerical Methods for Simulation	Oxford, UK
2015	8th European Symposium on Aerothermodynamics for Space Vehicles (Organiser: European Space Agency)	Lisbon, Portugal
2014	4th EASN Association International Workshop on Flight Physics and Aircraft Design	Aachen, Germany
2011-2015	4 <sup>th</sup> International Conference on Computational and Biomedical Engineering	USA, Hong Kong, France
2010-2014	International Conference on Computational Fluid Dynamics	Russia, USA, China
2014	3 <sup>rd</sup> International Conference on Computational methods for Thermal Problems	Slovenia
2007-2014	World Engineering Congress	London, UK
2014	11th International Conference of Condition Monitoring and Machinery Failure Prevention Technologies	Manchester, UK

2014	Mech Aero-2014, 2nd International Conference and Exhibition on Mechanical & Aerospace Engineering	Philadelphia, USA
2012	<b>Chair</b> , 13 <sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing	Woburn, UK
2012	9th International ERCOFTAC Symposium on Engineering Turbulence Modelling and Measurements	Thessaloniki, Greece
2012	New Models & Hydrocodes 2012 Conference	London, UK
2011	8th International Symposium on Shock Waves	Manchester, UK
2011	2011 American Institute of Aeronautics and Astronautics (AIAA) Conference on CFD	Hawaii, USA
2009-2011	2nd African Conference on Computational Mechanics, AfriComp11	Cape Town, South Africa
2010	12 <sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing	Moscow, Russia
2001, 2006, 2010	ECCOMAS CFD Conference	UK, The Netherlands, Portugal
2009	Workshop on Quality and Reliability of Large Eddy Simulations II	Pisa, Italy
2009	2nd Micro and Nano Flows Conference	London, UK
2009	1st African Conference on Computational Mechanics, Africomp'09	Cape Town, South Africa
2009	Large Eddy Simulation Short Course, jointly with F. Grinstein (LANL) and N. Georgiadis (NASA Glenn)	Cranfield, UK
2008	2nd South African International Aerospace Symposium (SAIAS2008)	Cape Town
2007	Symposium on Quality of Large Eddy Simulations - QLES2007	Leuven, Belgium
2006	"Micro and Nanoscale Flows: Advancing the Engineering Science and Design Conference"	Glasgow, UK
2005	Conference on "High Order Non-Oscillatory Methods for Wave Propagation: Algorithms and Applications"	Trento, Italy
2000-2005	ASME International Mechanical Engineering Congress and Exposition (IMECE 200-2005)	Boston, New York, New Orleans, Washington DC, Anaheim, Orlando, USA
2000	Sixth International Conference on "Applications of High Performance Computers in Engineering (HPC 2000)"	Hawaii, USA
1999	Conference "Godunov Methods: Theory and Applications" on the occasion of Prof. Godunov's 70th birthday	Oxford, UK
1999	2nd Joint ASME & JSME (Japanese Society for Mechanical Engineers) International Symposium on Validation Systems Transients Analysis Codes," ASME Fluids Engineering Conference	San Francisco, USA.
1998	Symposium "Multilevel Methods for Incompressible Viscous Flows", 4th SIAM International Conference on Numerical Methods and Applications	Sofia, Bulgaria
1997	5th International Conference on Applications of High Performance Computers in Engineering (HPC 97)	Santiago de Compostela, Spain
1997	International Parallel CFD'97 Conference	Manchester, UK
1996	Parallel CFD Workshop	Slovenia
1996	UMIST 7th CFD Colloquium	Manchester, UK
1994	EUROMECH Colloquium 315: "Efficient Numerical Methods and Parallel Computing in Fluid Mechanics"	University of Erlangen-Nuremberg, Germany

## Research publications

(Scopus Author ID: 56273846200)

- Citations: 5067 (Google scholar), 3317 (Scopus)
- *h-index*: 42 (Gogole Scholar), 35 (Scopus)
- *i10-index*: 113 (Google scholar)
- Book [1] has received 21500 downloads from Springer's web site.
- *Field Weighted Citation Impact (FWCI) of 5 selective papers*:
- Drikakis, Progress of Aerospace Sciences, 2005 (FWCI 18.84); Thornber & Drikakis, AIAA Journal, 2008 (FWCI 14.02); Kalweit & Drikakis, Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2008 (FWCI 13.5); Hahn & Drikakis, AIAA Journal, 2009 (FWCI 8.15); Drikakis et al., Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009 (FWCI 7.08).

## Books

1. D. Drikakis and W. Rider<sup>7</sup> *High-Resolution Methods for Incompressible and Low-Speed Flows*, Springer, 2005, 622 pages CFD textbook, (ISBN: 3-540-22136-0).
2. D. Drikakis and B. Geurts<sup>8</sup> (Eds) *Turbulent Flow Computation*, Kluwer Academic Publishers, 369 pages, 2002 (ISBN: 1-4020-0523-7).

## Journal publications (Refereed)<sup>9</sup>

1. K. Ritos, I. Kokkinakis, D. Drikakis, Performance of High-Order Implicit Large Eddy Simulations, *Computers and Fluids*, in print 2018, doi.org/10.1016/j.compfluid.2018.01.030 (IF 2.313)
2. S. Loiodice, D. Drikakis, A. Kokkalis, An efficient algorithm for the retarded time equation for noise from rotating sources, *Journal of Sound and Vibration*, 412, 336–348, 2017, (Impact Factor 2.593)
3. M. Frank, D. Drikakis, Solid-like heat transfer in confined liquids, *Microfluidics and Nanofluidics*, 21, 9, 6 p., 148, 2017, (IF 2.344)
4. K. Ritos, I. Kokkinakis, D. Drikakis, Physical insight into the accuracy of finely-resolved iLES in turbulent boundary layers, *Computers and Fluids*, in print, 2017, doi.org/10.1016/j.compfluid.2017.07.018, (IF 2.313)
5. C. Barmparousis, D. Drikakis, Multi-dimensional quantification of uncertainty and application to a turbulent mixing model, *Int. J. Numer. Meth. Fluids* 2017; 0:1–19 (in print), DOI: 10.1002/flid.4385, (IF 1.652)
6. K. Ritos, I. Kokkinakis, D. Drikakis, S. Spottswood, Implicit Large Eddy Simulation of Acoustic Loading in Supersonic Turbulent Boundary Layers, *Physics of Fluids*, 29, 046101, 2017, (IF 2.232)
7. M. Lappa, D. Drikakis, and I. Kokkinakis, On the propagation and multiple reflections of a blast wave travelling through a dusty gas in a closed box, *Physics of Fluids*, 29, 033301, 2017 (IF 2.232)
8. M. Papanikolalou, M. Frank, D. Drikakis, Effects of surface roughness on shear viscosity, *Physical Review E*, Vol. 95, 033108, 2017, (IF 2.366)
9. A. Antoniadis, P. Tsoutsanis, D. Drikakis, Assessment of high-order finite volume methods on unstructured meshes for RANS solutions of aeronautical configurations, *Computers and Fluids*, Volume 146, Pages 86-104, 2017, (IF 2.313)
10. M. Papanikolalou, M. Frank, D. Drikakis, Nanoflow over a fractal surface, *Physics of Fluids*, 28(8), 082001, 2016, (IF 2.232)
11. K. Deepak, M. Frank, D. Drikakis, and N. Asproulis, Thermal Properties of a Water-Copper Nanofluid in

<sup>7</sup>Los Alamos National Laboratory (now at Sandia Labs), USA.

<sup>8</sup>University of Twente, The Netherlands.

<sup>9</sup> Impact factors according to December 2017 Web of Science.

- a Graphene Channel, *Journal of Computational and Theoretical Nanoscience*, 13, 79-83. 2016.
12. D. Drikakis, D. Kwak, C. Kiris, Computational Aerodynamics: Advances and Challenges, *The Aeronautical Journal*, 120, 1223, pp 13-36, 2016, (IF 0.525)
  13. I. Kokkinakis, D. Drikakis, D.L. Youngs, R.J.R. Williams, Two-equation and multi-fluid turbulence models for Rayleigh-Taylor mixing, *Int. Journal of Heat and Fluid Flow*, Volume 56, Pages 233-250, 2015, (IF1.873)
  14. T. Oggian, D. Drikakis, D. Youngs, R. Williams, Computing multi-mode shock-induced compressible turbulent mixing at late times, *Journal of Fluid Mechanics*, Volume 779, 2015, Pages 411-431, (IF 2.821)
  15. D. Drikakis, M. Frank, Advances and challenges in computational research of micro and nano flows, *Microfluidics and Nanofluidics*, Volume 19, Issue 5, Pages 1019-1033, 2015, (IF 2.344)
  16. M. Frank, D. Drikakis, N. Asproulis, Thermal Conductivity of Nanofluid in Nanochannels, *Microfluidics and Nanofluidics*, Volume 19, Issue 5, Pages 1011-1017, 2015, (IF 2.344)
  17. Tsoutsanis, I. Kokkinakis, L. Konozy, D. Drikakis, R.J.R. Williams, D.L. Youngs, Comparison of structured- and unstructured-grid, compressible and incompressible methods using the vortex pairing problem *Computer Methods in Applied Mechanics and Engineering*, Volume 293, 15 August 2015, Pages 207–231, (IF 3.949)
  18. D. Drikakis, N. Asproulis, and D. Mantzalis, Carbon Dioxide Capture Using Multi-Walled Carbon Nanotubes, *J. Comput. Theor. Nanosci.* 12, 3981-3993, 2015.
  19. I. Kokkinakis, D. Drikakis, Implicit Large Eddy Simulation of Weakly-Compressible Turbulent Channel Flow, *Computer Methods in Applied Mechanics and Engineering*, 287, 229–261, 2015, (IF 3.949)
  20. D. Mantzalis, N. Asproulis, D. Drikakis, The effects of defects in CO<sub>2</sub> diffusion through Carbon Nanotubes, *Chemical Physics Letters*, 608, 244-248, 2014, (IF 1.815)
  21. A. Artusi, Z. Sou, Z. Zhang, D. Drikakis and X. Lou " High-Order Wavelet Reconstruction for Multi-Scale Edge Aware Tone Mapping", *Computer & Graphics Journal*, Volume 45, Pages 51-63, December 2014, (IF 1.176)
  22. L. Könözy, D. Drikakis, A Unified Fractional-Step, Artificial Compressibility and Pressure-Projection Formulation for Solving the Incompressible Navier-Stokes Equations, *Communications in Computational Physics*, Vol 16, 5, 1135-1180, 2014, (IF 2.004)
  23. N. Asproulis, D. Drikakis, Parallel HPC Implementation of Boundary Conditions in Hybrid Molecular/Computational Fluid Dynamics Methods, *Journal of Algorithms and Computational Technology*, Vol. 8, No. 4, 357-368, 2014.
  24. T. Oggian, D. Drikakis, D. Youngs, R. Williams, A hybrid compressible-incompressible CFD method for Richtmyer-Meshkov mixing, *ASME J. Fluids Eng.*, Volume 136, Issue 9, Article number 091210, 2014, (IF 1.437)
  25. M. G. Probyn, B. Thornber, D. Drikakis, D. Youngs, R. Williams, An Investigation into Non-Linear Growth Rate of 2D and 3D Single-Mode Richtmyer-Meshkov Instability, *ASME J. Fluids Eng.*, Volume 136, Issue 9, Article number 091208, 2014, (IF 1.437)
  26. P. Tsoutsanis, A.F. Antoniadis, D. Drikakis, WENO schemes on arbitrary unstructured meshes for laminar, transitional and turbulent flow, *Journal of Computational Physics*, 256, 254-276, 2014, (IF 2.746)
  27. S. Espinosa, N. Asproulis, and D. Drikakis, Chemotherapy efficiency increase via shock wave interaction with biological membranes: a molecular dynamics study, *Microfluidics and Nanofluidics*, 1-10, 2014, (IF 2.344)
  28. P. Hou, N. Asproulis, and D. Drikakis, Molecular Simulation of Crack Propagation in Aluminium, *Quantum Matter* 3, 406-411, 2014.
  29. Z.A. Rana, B. Thornber, D. Drikakis, Dynamics of Sonic Hydrogen Jet Injection and Mixing Inside Scramjet Combustor, *Journal of Engineering Application in Computational Fluid Mechanics*, Vol 7, 1, 13-39, 2013, (IF 1.167)



30. M. Benke, E. Shapiro, D. Drikakis, On mesoscale modelling of dsDNA molecules in fluid flow, *Journal of Computational and Theoretical Nanoscience*, 10(3), 697-704, 2013, (IF 1.666)
31. N. Asproulis and D. Drikakis, An Artificial Neural Network based Multiscale Method for Hybrid Atomistic-Continuum Simulations, *Microfluidics and Nanofluidics*, 15(4), 559-574, 2013, (IF 2.344)
32. D. Knight, J. Longo, D. Drikakis, D. Gaitonde, A. Lani, I. Nompelis, B. Reimann, L. Walpot, Assessment of CFD capability for prediction of hypersonic shock interactions, *Progress in Aerospace Sciences*, Vol 48-49, 8-26, 2012, (IF 3.919)
33. N. Asproulis, M. Kalweit, D. Drikakis, A Hybrid Molecular Continuum Method using Point Wise Coupling, *Advances in Engineering Software*, Vol. 46, Issue 1, 85-92, 2012, (IF 3.0)
34. D. Mantzalis, N. Asproulis, D. Drikakis, Characterization of CO<sub>2</sub> flow through charged carbon nanotubes, *Journal of Physics: Conference Series*, 362(1), 2012.
35. D. Mantzalis, N. Asproulis, D. Drikakis, Carbon dioxide transport in carbon nanopores, *Journal of Physics: Conference Series*, 362(1), 2012.
36. A.F. Antoniadis, D. Drikakis, B. Zhong, G. Barakos, R. Steijl, M. Biava, L. Vigevano, A. Brocklehurst, O.Boelens, M. Dietz, M. Embacher, W. Khier, T. Renaud, Assessment of CFD methods against experimental measurements for helicopter flows, *Aerospace Science and Technology*, 19, 1, 86-100, 2012, (IF2.057)
37. J. Milnes, A. Burns, D. Drikakis, Computational modelling of the HyperVapotron cooling technique, *Fusion Engineering and Design*, 87(9), 1647-1661, 2012, (IF 1.319)
38. B. Thornber, D. Drikakis, D.L. Youngs, R.J.R. Williams, Physics of the single-shocked and reshocked Richtmyer–Meshkov instability, *Journal of Turbulence*, Vol. 13, 10, 1-17, 2012, (IF 1.417)
39. D. Drikakis, N. Asproulis, Quantification of Computational Uncertainty in Science and Engineering, *ASME Applied Mechanics Review*, 64(4), 2011, (IF 7.921)
40. D. Mantzalis, N. Asproulis, D. Drikakis, Enhanced Carbon dioxide adsorption through Carbon Nanoscrolls, *Physical Review E*, 84(6), 06634, 2011, (IF 2.366)
41. Z.A. Rana, B. Thornber, D. Drikakis, On the importance of generating accurate turbulent boundary condition for unsteady simulations, *Journal of Turbulence*, Vol. 12, 2011, (IF 1.417)
42. P.T. Barton, M. Kalweit, D. Drikakis, G. Ball, Multi-scale analysis of high-speed dynamic friction, *Journal of Applied Physics*, 110(9), 093520, 2011, (IF 2.068)
43. P. Barton, B. Obadia, D. Drikakis, A conservative level-set based method for compressible solid/fluid problems on fixed grids, *Journal of Computational Physics*, Vol 230, Issue 21, 2011, 7867-7890, 2011, (IF 2.746)
44. B. Thornber, D. Drikakis, D.L. Youngs, R.J.R. Williams, Growth of a Richtmyer-Meshkov turbulent layer after reshock, *Physics of Fluids*, 095107, 2011, (IF 2.232)
45. A. Pagano, S. Ameduri, V. Cokonaj, A. Prachar, Z. Zachariadis, D. Drikakis, Helicopter blade morphing strategies aimed at mitigating environmental impact, *Journal of Theoretical and Applied Mechanics*, 49(4), 1233-1259, 2011, (IF 0.683)
46. M. Kalweit, D. Drikakis, Multiscale simulation strategies and mesoscale modelling of gas and liquid flows, *IMA Journal of Applied Mathematics*, 1–11, 2011, (IF 0.945) Vol.76, Issue 5, 661-671
47. A. Panaras, D. Drikakis, Physical and numerical aspects of the high-speed unsteady flow around concave axisymmetric bodies, *CEAS Space Journal*, 1(1-4), 23-32, 2011. ?
48. M. Hahn, D. Drikakis, D. L. Youngs, R. J. R Williams, Richtmyer-Meshkov turbulent mixing arising from an inclined material interface with realistic surface perturbations and reshocked flow, *Physics of Fluids*, Vol. 23, 4, 046101, 2011, (IF 2.232)
49. Y. Shimada, B. Thornber, D. Drikakis, High-order Implicit Large Eddy Simulation of gaseous fuel injection and mixing of a bluff body burner, *Computers & Fluids*, Vol. 44, 1, 229-237, 2011, (IF 2.313)
50. A.F. Antoniadis, K.H. Iqbal, E. Shapiro, N. Asproulis, D. Drikakis, Comparison of High-order Finite Volume and Discontinuous Galerkin Methods on 3D Unstructured Grids, *Numerical Analysis and Applied Mathematics* (also in ICNAAM 2011AIP Conf. Proc.) Vol. 1389, 1886-1889, 2011.
51. Z.A. Rana, B. Thornber, D. Drikakis, Transverse jet injection into a supersonic turbulent cross-flow, *Physics of Fluids*, Vol. 23, 4, 046103, 2011, (IF 2.232)

52. N. Asproulis, D. Drikakis, Wall mass effects on hydrodynamic boundary slip, *Physical Review E*, Vol. 84, 031504, 2011, (IF 2.366)
53. J. Appleyard, D. Drikakis, Higher-order CFD and interface tracking methods on highly-Parallel MPI and GPU systems, *Computers & Fluids*, Vol. 46, 1, 101-105, 2011, (IF 2.313)
54. V.A. Titarev, D. Drikakis, Uniformly high-order schemes on arbitrary unstructured meshes for advection-diffusion equations, *Computers & Fluids*, Vol. 46, 1, 467-471, 2011, (IF 2.313)
55. D. Mantzalis, N. Asproulis, D. Drikakis, Filtering carbon dioxide through carbon nanotubes, *Chemical Physics Letters*, Vol. 506, 1-3, 81-85, 2011, (IF 1.815)
56. P. Tsoutsanis, V.A. Titarev, D. Drikakis. WENO schemes on arbitrary mixed element unstructured meshes in three space dimensions, *Journal of Computational Physics*, Vol. 230, 4(20), 1585-1601, 2011, (IF 2.746)
57. I. Gaskin, E. Shapiro, D. Drikakis, Numerical and Experimental Study of a Thermal Time of Flight Flow Meter, *ASME Journal of Fluids Engineering*, 133 (4), 041401, 2011, (IF 1.437)
58. D. Drikakis, C. Milionis, S. K. Pal, S. Patel, E. Shapiro, Assessment of the applicability of analytical models for blood flow prediction in reconstructive surgery, accepted, *International Journal for Numerical Methods in Biomedical Engineering*, 27(7), 993-999, 2011, (IF 2.192)
59. M. Benke, E. Shapiro, D. Drikakis, Mechanical behaviour of DNA molecules-elasticity and migration, *Medical Engineering and Physics*, 33, Issue 7, 883-886, 2011, (IF 1.819)
60. B. Thornber, M. Starr, D. Drikakis, Implicit large eddy simulation of ship airwakes, *The Aeronautical Journal*, 114, 1162, 715-736, 2011, (IF 0.525)
61. S. Tissera, D. Drikakis, T. Birch, Computational Fluid Dynamics Methods for Hypersonic Flow Around Blunted-Cone-Cylinder-Flare, *Journal of Spacecraft and Rockets*, Vol. 47, 4, 563-570, 2010, (IF 0.804)
62. M. Porton, E. Shapiro, D. Drikakis, Transitional Modelling of the Neutral Gas in the JET Neutraliser, *Fusion Engineering and Design*, 85(5), 789-795, 2010, (IF 1.319)
63. N. Asproulis, D. Drikakis, Boundary slip dependency on surface stiffness, *Physical Review E*, 81, 061503, 2010, (IF 2.366)
64. B. Thornber, D. Drikakis, D. L. Youngs, R. J. R. Williams, The influence of initial conditions on turbulent mixing due to Richtmyer-Meshkov instability, *Journal of Fluid Mechanics*, 654, 99-139, 2010, (IF 2.821)
65. D. Drikakis, N. Asproulis, Multiscale Computational Modelling of Flow and Heat Transfer, *International Journal for Numerical Methods for Heat and Fluid Flow*, Vol 20, Issue 5, 2010, (IF 1.713)
66. M. Lai, M. Kalweit, D. Drikakis, Temperature and ion concentration effects on the viscosity of Price-Brooks TIP3P water model, *Molecular Simulation*, Vol. 36, Issue 10, 801-804, 2010, (IF 1.254)
67. M. Kalweit, D. Drikakis, On the behavior of fluidic material at molecular dynamics boundary conditions used in hybrid molecular-continuum simulations, *Molecular Simulation*, Vol. 36, Issue 9, 657-662, 2010, (IF 1.254)
68. N. Asproulis, D. Drikakis, Surface Roughness Effects in Micro and Nanofluidic Devices, *Journal of Computational and Theoretical Nanoscience*, Vol. 7, Issue 9, 1825-1830, 2010, (IF 1.666)
69. P. Barton, D. Drikakis, An Eulerian method for multi-component problems in non-linear elasticity with sliding interfaces, *Journal of Computational Physics*, Vol. 229, Issue 15, 1, 5518-5540, 2010, (IF 2.746)
70. V. A. Titarev, P. Tsoutsanis, D. Drikakis, WENO schemes for mixed-element unstructured meshes, *Commun. Comput. Phys.*, 8, 585-609, 2010, (IF 2.004)
71. N. Epiphaniou, M. Kalweit, D. Drikakis, G. Ball, N. Park, Molecular dynamics simulations of dynamic friction and mixing at rapidly moving material interfaces, *Journal of Computational and Theoretical Nanoscience*, 7, 97-106, 2010, (IF 1.666)
72. A. Buonanno, D. Drikakis, C. Papachristou, A. Savvaris, C. Vamvakoulas, C. Warsop, Computational investigation of the DEMON unmanned air vehicle thrust vectoring system, *Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering*, Vol. 224, 4, 387-394, 2010, (IF 0.809)
73. E. Romenskiy, D. Drikakis, E. Toro, Models and Numerical Methods for Compressible Two-Phase Flow, *Journal of Scientific Computing*, 42, 68-95, 2010, (IF 1.899)

74. P. T. Barton, D. Drikakis, E. I. Romenski, An Eulerian finite-volume scheme for large elastoplastic deformations in solids, *International Journal for Numerical Methods in Engineering*, Vol. 81, Issue 4, 453-484, 2010, (IF 2.162)
75. E. Quaranta, D. Drikakis, Noise radiation from a ducted rotor in a swirling-translating flow, *Journal of Fluid Mechanics*, 641, 463-473, 2009, (IF 2.821)
76. J. S. Pushparajalingam, M. Kalweit, M. Labois, D. Drikakis, Molecular dynamics of adsorption of argon on graphene, carbon nanotubes and carbon nanotubes bundles, *Journal of Computational and Theoretical Nanoscience*, 6(10), 2156-2163, 2009, (IF 1.666)
77. P. Pantazopoulou, D. Drikakis, Computational Modelling of Acoustic Scattering of a Sound Source in the Vicinity of the Ground, *Engineering Letters*, 17, 4, 219-226, 2009.
78. A. Panaras, D. Drikakis, High-speed unsteady flows around spiked-blunt bodies, *Journal of Fluid Mechanics*, Vol. 632, 69-96, 2009, (IF 2.821)
79. D. Drikakis, M. Hahn, A. Mosedale, B. Thornber, Large Eddy Simulation Using High Resolution and High Order Methods, *Philosophical Transactions Royal Society A*, 367, 2985-2997, 2009, (IF 2.97)
80. V. A. Titarev, E. Romenski, D. Drikakis, E. Surrey, Computational modelling of the IFMIF lithium target, *Fusion Engineering and Design*, Vol. 84, 1, 49-56, 2009, (IF 1.319)
81. M. Hahn, D. Drikakis, Implicit Large-Eddy Simulation of Swept Wing Flow using High-Resolution Methods, *AIAA Journal*, Vol. 47, 3, 618-629, 2009, (IF 1.638)
82. N. Asproulis, M. Kalweit, E. Shapiro, D. Drikakis, Mesoscale flow and heat transfer modelling and its application to liquid and gas flows, *Journal of Nanophotonics*, 3(01), 031960-031975, 2009, (IF 1.325)
83. D. Drikakis, J. Lechuga, S. Pal, Effects of Shock Waves on Biological Membranes: A Molecular Dynamics Study, *Journal of Computational and Theoretical Nanoscience*, Vol.6, 1-6, 2009, (IF 1.666)
84. P. T. Barton, D. Drikakis, E.I. Romenski, V. Titarev, Exact and approximate solutions of Riemann problems in non-linear elasticity, *Journal of Computational Physics*, Vol. 228, 18, 7046-7068, 2009, (IF 2.746)
85. M. Hahn, D. Drikakis, Assessment of Large-Eddy Simulation of Internal Separated Flow, *Journal of Fluids Engineering*, Vol. 131, 071201-071215, 2009, (IF 1.437)
86. J. Milnes, D. Drikakis, Qualitative assessment of RANS models for Hypervapotron flow and heat transfer, *Fusion Engineering and Design*, Vol. 84, 1305-1312, 2009, (IF 1.319)
87. B. Thornber, D. Drikakis, Implicit Large Eddy Simulation of a Deep Cavity Using High-Resolution Methods, *AIAA Journal*, Vol. 46, 10, 2634-2685, 2008, (IF 1.638)
88. B. Thornber, A. Mosedale, D. Drikakis, D. Youngs, R. Williams, An Improved Reconstruction Method for Compressible Flows with Low Mach Number Features, *Journal of Computational Physics*, 227, 4873-4894, 2008, (IF 2.746)
89. B. Thornber, D. Drikakis, R. Williams, D. Youngs, On Entropy Generation and Dissipation of Kinetic Energy in High-Resolution Shock-Capturing Schemes, *Journal of Computational Physics*, 227, 4853-4872, 2008, (IF 2.746)
90. E. Romenskiy, D. Drikakis, Compressible two-phase flow modelling based on thermodynamically compatible systems of hyperbolic conservation laws, *International Journal for Numerical Methods in Fluids*, Vol. 56, 1473-1479, 2008, (IF 1.652)
91. B. Thornber, D. Drikakis, Numerical dissipation of upwind schemes in low Mach flow, *International Journal for Numerical Methods in Fluids*, Vol. 56, 8, 1535-1541, 2008, (IF 1.652)
92. B. Thornber, D. Drikakis, D. Youngs, Large-eddy simulation of multi-component compressible turbulent flows using high resolution methods, *Computers and Fluids*, 37(7), 867-876, 2008, (IF 2.313)
93. M. Benke, E. Shapiro, D. Drikakis, An efficient multi-scale modelling approach for ssDNA motion in fluid flow, *Journal of Bionic Engineering*, Vol. 5, 4, 299-307, 2008, (IF 2.388)
94. N. Asproulis, D. Drikakis, Nanoscale materials modelling using neural networks, *Journal of Computational and Theoretical Nanoscience*, 6(3), 514-518, 2009, (IF 1.666)
95. M. Kalweit, D. Drikakis, Multiscale Methods for Micro/Nano Flows and Materials, *Journal of Computational and Theoretical Nanoscience*, 5, 1923-1938, 2008, (IF 1.666)
96. M. Kalweit, D. Drikakis, Coupling strategies for hybrid molecular-continuum simulation methods,

- Proc. IMechE*, Vol. 222, Part C: *J. Mechanical Engineering Science*, 797-806, 2008, (IF 1.015)
97. S. Pal, D. Drikakis, J. Lechuga. Molecular diffusion in a simulated model of a biological cell membrane by shock wave impulse. *British Journal of Anaesthesia*, 101(4): 587, 2008, (IF 6.238)
  98. J. Lechuga, D. Drikakis, S. Pal, Molecular dynamics study of the interaction of a shock wave with a biological membrane, *International Journal for Numerical Methods in Fluids*, 57, 677-692, 2008, (IF 1.652)
  99. F. Grinstein, D. Drikakis, (Editorial) Computing Turbulent Flow Dynamics With Implicit Large Eddy Simulation, *Journal of Fluids Engineering*, 129, 1481, 2007, (IF 1.437)
  100. B. Thornber, D. Drikakis, Large eddy simulation of shock-wave-induced turbulent mixing, *ASME Journal of Fluids Engineering*, 1505-1513, 2007, (IF 1.437)
  101. A. Mosedale, D. Drikakis, Assessment of very high-order of accuracy in LES models, *ASME Journal of Fluids Engineering*, Vol. 129(12), 1497-1503, 2007, (IF 1.437)
  102. B. Thornber, A. Mosedale, D. Drikakis, On the implicit large eddy simulations of homogeneous decaying turbulence, *Journal of Computational Physics*, 226, 1902-1929, 2007, (IF 2.746)
  103. D. Drikakis, M. Hahn, Z. Malick, E. Shapiro, Implicit Large Eddy Simulations of Wall-Bounded Turbulent Flows, *ERCRAFT Bulletin, Special Issue on Wall Modelling in LES*, 72, 61-66, 2007.
  104. E. Shapiro, D. Drikakis, J. Gargiuli, P. Vadgama, Interface capturing in dual-flow microfluidics, *Journal of Computational and Theoretical Nanoscience*, 4, 802-806, 2007, (IF 1.666)
  105. D. Drikakis, C. Fureby, F. Grinstein, D. Youngs, Simulation of Transition and Turbulence-Decay in Taylor-Green Vortex, *Journal of Turbulence*, 8, 1, 1-12, 2007, (IF 1.417)
  106. G. Nair, J. Garguili, N. R. Shiju, Z. Rhong, E. Shapiro, D. Drikakis, P. Vadgama, In Situ fabrication of Crosslinked Protein Membranes using Microfluidics, *ChemBioChem*, 7(11), 1683-1689, 2006, (IF 2.847)
  107. J. Gargiuli, E. Shapiro, H. Gulhane, G. Nair, D. Drikakis, P. Vadgama "Microfluidic systems for in situ formation of nylon 6,6 membranes" *Journal of Membrane Science*, 282, 257-265, 2006, (IF 6.035)
  108. M. Kalweit, D. Drikakis, Collision Dynamics of Nanoscale Lennard-Jones Clusters, *Physical Review B*, 74, 235415, 2006 (doi:10.1103/PhysRevB.74.235415), (IF 3.836)
  109. E. Shapiro, D. Drikakis, Non-conservative and conservative formulations of characteristics numerical reconstructions for incompressible flows, *International Journal for Numerical Methods in Engineering*, Vol. 66, 9, 1466-1482, 2006, (IF 2.162)
  110. A. Bagabir, D. Drikakis, Shock-wave induced instability in internal explosion dynamics, *The Aeronautical Journal*, Vol. 109, 1101, 2005, (IF 0.525)
  111. D. Drikakis, . Youngs, F. Grinstein, Symmetry-breaking and instabilities in Fluid Mechanics, *Progress in Aerospace Sciences*, 41, 609-641, 2005, (IF 3.919)
  112. M. Hahn, D. Drikakis, Large eddy simulation of compressible turbulence using high-resolution methods, *International Journal for Numerical Methods in Fluids*, 47, 971-977, 2005, (IF 1.652)
  113. S. Patel, D. Drikakis, Effects of preconditioning on the accuracy and efficiency of incompressible flows, *International Journal for Numerical Methods in Fluids*, 47, 963-970, 2005, (IF 1.652)
  114. E. Shapiro, D. Drikakis, Artificial compressibility, characteristics-based schemes for variable density, incompressible, multi-species flows. Part I. Derivation of different formulations and constant density limit, *Journal of Computational Physics*, 210, 584-607, 2005, (IF 2.746)
  115. E. Shapiro, D. Drikakis, Artificial compressibility, characteristics-based schemes for variable density, incompressible, multi-species flows. Part II. Multigrid implementation and numerical tests, *Journal of Computational Physics*, 210, 608-631, 2005, (IF 2.746)
  116. S. Patel, D. Drikakis, S. Pal, Computational Fluid Dynamics of flow through a free flap in reconstructive surgery, *International Journal for Dynamics in Fluids*, Vol. 1, 1, 25-36(12), 2005.
  117. D. Drikakis, M.Hahn, S. Patel and E. Shapiro, High-resolution methods for incompressible compressible and variable density flows, *ERCRAFT Bulletin*, 62, 2004.
  118. A. Bagabir, D. Drikakis, Numerical experiments using high-resolution schemes for unsteady, inviscid, compressible flows, *Computer Methods in Applied Mechanics and Engineering*, Vol 193/42-

- 44, 4675-4705, 2004, (IF 3.949)
119. M. Kalweit, D. Drikakis, Molecular Dynamics of Colliding Nanoclusters, *Journal of Computational and Theoretical Nanoscience*, 4, 367-377, 2004, (IF 1.666)
  120. S. Pal, S. Patel, D. Drikakis, Effect of anastomosis on fluid flow through the arterial network of a rectus abdominis free flap, *British Journal of Anaesthesia*, 94, 403-404, 2004, (IF 6.238)
  121. S. Pal, S. Patel, D. Drikakis, Simulation of fluid flow through the arterial network of a rectus abdominis free flap, *British Journal of Anaesthesia*, 93, 167-168, 2004, (IF 6.238)
  122. D. Drikakis, Advances in turbulent flow computations using high-resolution methods, *Progress in Aerospace Science*, 39, 405-424, 2003, (IF 3.919)
  123. G. Barakos, D. Drikakis, Computational study of unsteady flows around oscillating and ramping aerofoils, *International Journal for Numerical Methods in Fluids*, 42, 2, 163-186, 2003, (IF 1.652)
  124. P. Neofytou, D. Drikakis, Effects of blood models on flows through a stenosis, *International Journal for Numerical Methods in Fluids*, 43, 597-635, 2003, (IF 1.652)
  125. P. Neofytou, D. Drikakis, Non-Newtonian flow instability in a channel with a sudden expansion, *Journal of Non-Newtonian Fluid Mechanics*, 111(2-3), 127-150, 2003, (IF 2.536)
  126. D. Drikakis, Embedded Turbulence Model in Numerical Methods for Hyperbolic Conservation Laws, *International Journal for Numerical Methods in Fluids*, 39, 763-781, 2002, (IF 1.652)
  127. D. Drikakis, L. Margolin, P.K. Smolarkiewicz, "Spurious" eddies, *International Journal for Numerical Methods in Fluids*, 40, 313-322, 2002, (IF 1.652)
  128. F. Mallinger, D. Drikakis, Laminar-to-turbulent transition in pulsatile flow through a stenosis, *Biorheology Journal*, 39, 437-441, 2002, (IF 1.078)
  129. F. Mallinger, D. Drikakis, Instability in three-dimensional, unsteady stenotic flows, *International Journal of Heat and Fluid Flow*, 23, 657-663, 2002, (IF 1.873)
  130. M. A. Leschziner, D. Drikakis, Turbulence and turbulent-flow computation in aeronautics, *The Aeronautical Journal*, 2729, 349-384, 2002, (IF 0.525)
  131. A. Bagabir, D. Drikakis, Mach number effects on shock-bubble interaction, *Shock Waves Journal*, 11, 209-218, 2001, (IF 1.107)
  132. J. Rokicki, J. Majewski, D. Drikakis, J. Zoltak, Parallel Chimera Grid Method, *Future Generation of Computer Systems*, 18, 3-15, 2001, (IF 3.997)
  133. D. Drikakis, P.K. Smolarkiewicz, On spurious vortical structures, *Journal of Computational Physics*, 172, 309-325, 2001, (IF 2.746)
  134. D. Drikakis, J. Majewski, J. Rokicki, J. Zoltak, Investigation of blending-function-based overlapping-grid technique for compressible flows, *Computer Methods in Applied Mechanics and Engineering*, 190, 5173-5195, 2001, (IF 3.949)
  135. G. Barakos, D. Drikakis, Numerical simulation of transonic buffet flows using various turbulence closures, *International Journal of Heat and Fluid Flow*, 21, 620-626, 2000, (IF 1.873)
  136. G. Barakos, D. Drikakis, Investigation of non-linear eddy-viscosity models in shock boundary-layer interaction, *AIAA Journal*, Vol. 38, 3, 461-469, 2000, (IF 1.638)
  137. G. Barakos, D. Drikakis, Unsteady separated flows over manoeuvring lifting surfaces, *Phil. Trans. Royal Soc. Lond. A*, 358, 3279-3291, 2000, (IF 2.224)
  138. D. Drikakis, O. Iliev, D.P. Vassileva, Acceleration of multigrid flow computation through dynamic adaptation of the smoothing procedure, *Journal of Computational Physics*, 165, 566-591, 2000, (IF 2.746)
  139. G. Barakos, D. Drikakis, An implicit unfactored method for unsteady, turbulent compressible flows with moving boundaries, *Computers and Fluids Journal*, 28, 8, 899-921, 1999, (IF 2.313)
  140. G. Barakos, D. Drikakis, W. Lefebvre, Improvement to numerical predictions of aerodynamic flows using experimental data assimilation, *Journal of Aircraft*, Vol. 36, 3, 611-614, 1999, (IF 0.835)
  141. J. Zoltak, D. Drikakis, Hybrid upwind methods for the simulation of unsteady shock-wave diffraction over a cylinder, *Computer Methods in Applied Mechanics and Engineering*, Vol. 162, 1-4, 165-185, 1998, (IF 3.949)
  142. G. Barakos, D. Drikakis, Assessment of various low-Re turbulence models in shock boundary layer

- interaction, *Computer Methods in Applied Mechanics and Engineering*, Vol. 160, 1-2, 155-174, 1998, (IF 3.949)
143. G. Barakos, D. Drikakis, Implicit-coupled implementation of two-equation turbulence models in compressible Navier-Stokes methods, *International Journal for Numerical Methods in Fluids*, 28, 73-94, 1998, (IF 1.652)
  144. D. Drikakis, O. Iliev, D.P. Vassileva, A non-linear full multigrid method for the three-dimensional incompressible Navier-Stokes equations, *Journal of Computational Physics*, 146, 301-321, 1998, (IF 2.746)
  145. D. Drikakis, U. Goldberg, Wall-distance-free turbulence models applied to incompressible flows, *International Journal of Computational Fluid Dynamics*, Vol. 10, 241-253, 1998, (IF 0.938)
  146. D. Drikakis, Study of bifurcation flow phenomena in incompressible sudden-expansion flows, *Physics of Fluids*, 9, 1, 76-87, 1997, (IF 2.232)
  147. D. Drikakis, D. Ofengeim, E. Timofeev, P. Voinovich, Computation of non-stationary shock-wave/cylinder interaction using adaptive grid methods, *Journal of Fluids and Structures*, 11, 7, 665-691, 1997, (IF 2.021)
  148. D. Ofengeim, D. Drikakis, Simulation of blast wave propagation over a cylinder, *Shock Waves Journal*, 7, 305-317, 1997, (IF 1.107)
  149. W. Angelis, D. Drikakis, F. Durst, W. Khier, Numerical and experimental study of the flow over a two-dimensional car model, *Journal of Wind Engineering & Industrial Aerodynamics*, 62, 57-79, 1996, (IF 2.049)
  150. D. Drikakis, A Parallel Multiblock Characteristics-Based Method for 3D Incompressible Flows, *Advances in Engineering Software*, 26, 111-119, 1996, (IF 3.0)
  151. D. Panayotounakos, D. Drikakis, On the closed form solutions of the wave Diffusion and Burger's Equation in Fluid Mechanics, *Journal of Applied Mathematics & Mechanics (Zeitschrift für Angewandte Mathematik Mechanik; ZAMM)*, 75, 6, 437-447, 1995, (IF 0.433)
  152. D. Drikakis, F. Durst, A numerical study of viscous supersonic flow past a flat plate at large angles of incidence, *Physics of Fluids*, Vol. 6, 4, 1553-1573, 1994, (IF 2.232)
  153. D. Drikakis, E. Schreck, F. Durst, Performance analysis of viscous flow computations on various parallel architectures, *ASME Journal of Fluids Engineering*, Vol. 116, 835-841, 1994, (IF 1.437)
  154. D. Drikakis, F. Durst, Investigation of flux formulae in shock wave turbulent boundary layer interaction, *International Journal for Numerical Methods in Fluids*, Vol. 18, 385-413, 1994, (IF 1.652)
  155. D. Drikakis, F. Durst, Parallelization of inviscid and viscous flow solvers, *International Journal of Computational Fluid Dynamics*, Vol. 3, 101-121, 1994, (IF 0.938)
  156. D. Drikakis, P. Govatsos, D. Papantonis, A Characteristic Based Method for Incompressible Flows, *International Journal for Numerical Methods in Fluids*, Vol. 19, 667-685, 1994, (IF 1.652)
  157. D. Drikakis, S. Tsangaris, On the solution of the compressible Navier-Stokes equations using improved flux vector splitting methods, *Applied Mathematical Modelling*, Vol. 17, 282-297, 1993, (IF 2.35)
  158. D. Drikakis, S. Tsangaris, Real Gas effects for Compressible Nozzle Flows, *ASME Journal of Fluids Engineering*, Vol. 115, 115-120, 1993, (IF 1.437)
  159. D. Drikakis, S. Tsangaris, On the Accuracy and Efficiency of CFD Methods in Real Gas Hypersonics, *International Journal for Numerical Methods in Fluids*, Vol. 16, 759-775, 1993, (IF 1.652)
  160. D. Drikakis, S. Tsangaris, Zonal-Local Solution Method for the Accelerated Solution of the Turbulent Navier-Stokes Equations, *AIAA Journal*, Vol. 31, 10, 1759-1760, 1993, (IF 1.638)
  161. D. Drikakis, S. Tsangaris, Local Solution Acceleration Method for the Compressible Euler and Navier-Stokes Equations, *AIAA Journal*, Vol. 30, 2, 340-348, 1992, (IF 1.638)
  162. D. Drikakis, S. Tsangaris, Upwind schemes for the Navier-Stokes equations from subsonic through hypersonic speeds, *Journal of Applied Mathematics & Mechanics (Zeitschrift für Angewandte Mathematik Mechanik; ZAMM)*, Vol. 72, 5, 385-388, 1992, (IF 0.433)
  163. D. Drikakis, S. Tsangaris, An Implicit Characteristic Flux Averaging Scheme for the Euler Equations for Real Gases, *International Journal for Numerical Methods in Fluids*, Vol. 12, 711-726, 1991, (IF

1.652)

164. D. Drikakis, S. Tsangaris, Multigrid Scheme for the Compressible Euler Equations, *Journal of Applied Mathematics & Mechanics (Zeitschrift für Angewandte Mathematik Mechanik; ZAMM)*, Vol 70, 6, 663-666, 1990, (IF 0.433)
165. S. Tsangaris, D. Drikakis, Pulsating blood flow in an anisotropic elastic tube: Linear approximation of the pressure waves, *Medical and Biological Engineering and Computing*, Vol. 27, 82-88, 1989, (IF 1.916)

#### **Chapters in Edited Books (Refereed)**

166. D. Mantzalis, N. Asproulis, L. Könözy and D. Drikakis, Computational Modelling of Aqueous Environments, Book Chapter on Detection of Pathogens in Water Using Micro and Nano-Technology, IWA Publishing, 2012
167. P. Sagaut, D. Drikakis, Large Eddy Simulation, *Encyclopedia of Aerospace Engineering*, John Wiley & Sons Ltd, 2010.
168. D. Drikakis, Introduction to compressible flows, *Encyclopedia of Aerospace Engineering*, John Wiley & Sons Ltd, 2010.
169. D. Drikakis, N. Asproulis, E. Shapiro, M. Benke, Computational Strategies for Micro and Nanofluid Dynamics, In *Microfluidic Devices in Nanotechnology: Current Status and a Future Perspective*, ed. C.S.S.R. Kumar, John Wiley, 2010.
170. D. Drikakis, C. Fureby, F. Grinstein, D. Youngs, Flux limiting schemes for Implicit Large Eddy Simulation, in *Implicit Large Eddy Simulation: Computing Turbulent Fluid Dynamics*, eds. Grinstein et al., Cambridge University Press, 2007.
171. D. Drikakis, Symmetry-breaking bifurcation and instabilities, in *Implicit Large Eddy Simulation: Computing Turbulent Fluid Dynamics*, eds. Grinstein et al., Cambridge University Press, 2007.
172. D. Drikakis, M. Kalweit, Computational Modelling of Flow and Mass Transport Processes in Nanotechnology, Invited Chapter in the First Handbook in *Theoretical and Computational Nanotechnology*, eds. M. Rieth, W.Schommers, American Scientific Publishers, Chapter 11, 470-545, 2006.
173. W. Rider, D. Drikakis, High Resolution Methods for Computing Turbulent Flows, In *Turbulent Flow Computation*, eds. D. Drikakis, B. Geurts, Kluwer Academic Publisher, 43-74, 2002.
174. D. Drikakis, The issue of numerical accuracy in Computational Fluid Dynamics, *Computational Fluid Dynamics in Practice*, UK Institution of Mechanical Engineers, ed. N. Rhodes, Edited Review Chapter, 1-22, 2001.
175. D. Drikakis, Uniformly high-order methods for unsteady incompressible flows, edited review chapter in the book *Godunov Methods: Theory and Applications*, Kluwer Academic Publishers ed. E.F. Toro, 263-283, 2001.
176. D. Drikakis, Unsteady shock-wave diffraction, *Recent Research Developments in Fluid Dynamics*, Vol. 2, 1-19, ed. S.G. Pandalai, Transworld Research Network, 1999.
177. D. Drikakis, Parallelisation of CFD methods for incompressible and compressible flows, In *High Performance Computing, Vol 4, Algorithms and Applications of Parallel Computing*, ed. H. Power, Computational Mechanics Publications, 117-155, 1999.
178. J. Rokicki, D. Drikakis, J. Majewski, J. Zoltak, Overlapping Mesh Technique for Compressible Flows-Parallel Implementation, *The Springer International Series in Engineering and Computer Science, Vol. 515, Parallel Numerical Computations with Applications*, ed. Tianruo Yang, 159-175, 1999.

#### **Conference papers**

*Refereed papers on the basis of abstract/extended abstract/full paper, are indicated by '+'*

179. <sup>+</sup> K. Singh; D. Drikakis; M. Frank; I.W. Kokkinakis; J.J. Alonso; T.D. Economou, E.T. van der Weide, Comparison of the Finite Volume and Discontinuous Galerkin schemes for the Double Vortex Pairing

Problem using the SU2 Software Suite, AIAA Science and Technology Forum and Exposition, January 07-12, 2018, AIAA-2018-1833.

180. <sup>+</sup> K. Ritos; I.W. Kokkinakis; D. Drikakis, Physical insight into a Mach 7.2 compression corner flow, AIAA Science and Technology Forum and Exposition, January 07-12, 2018, AIAA-2018-1810.
181. <sup>+</sup> M. Frank, D. Drikakis, Mesoscale models for solid/liquid interfaces using HPC, 29th International Conference on Parallel Computational Fluid Dynamics, Glasgow, 15-17May 2017.
182. <sup>+</sup> K. Ritos, I.W. Kokkinakis, D. Drikakis, Balancing accuracy requirements and computational cost in implicit LES and DNS, 29th International Conference on Parallel Computational Fluid Dynamics, Glasgow, 15-17May 2017 (full paper under review in Computer & Fluids)
183. <sup>+</sup> M. Frank, D. Drikakis, Inert state of fuel tank during aircraft ascent, AIAA-2017-0392, AIAA SciTech Conference, Gaylord Texan, Grapevine, Texas, 9-13 January, 2017.
184. <sup>+</sup> K. Ritos, I. Kokkinakis, D. Drikakis, Thermo-Acoustic Effects in High- Speed Compressible Transitional and Turbulent Boundary Layers, AIAA-2017-0745 , Gaylord Texan, Grapevine, Texas, 9-13 January, 2017.
185. <sup>+</sup> M. Frank, D. Drikakis, Does particle size matter in nanofluids' thermal properties? 5th International Conference on Micro and Nano Flows, MNF2016, Politecnico di Milano, Italy, 11-14 September 2016.
186. I. Kokkinakis, D. Drikakis, Vortex Dynamics in Supersonic Shock-Boundary Layer Interaction Flows, 6th EASN International Conference on Innovation in European Aeronautics Research, Porto, Portugal, 18-21 October 2016.
187. M. Frank, D. Drikakis, Evolution of oxygen in aircraft fuel tanks during climb, 6th EASN International Conference on Innovation in European Aeronautics Research, Porto, Portugal, 18-21 October 2016.
188. <sup>+</sup> N. Simmonds, P. Tsoutsanis, D. Drikakis, A. Gaylard, W. Jansen, Full Vehicle Aero-Thermal Cooling Drag Sensitivity Analysis for Various Radiator Pressure Drops, SAE Technical Paper 2016-01-1578.
189. <sup>+</sup> P. Tsoutsanis, D. Drikakis, Addressing the challenges of implementation of high- order finite-volume schemes for atmospheric dynamics on unstructured meshes, VII European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2016), June 5-10, Crete, Greece.
190. <sup>+</sup> I. Kokkinakis, D. Drikakis, Near wall behaviour of implicit large eddy simulations, VII European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2016), June 5-10, Crete, Greece.
191. <sup>+</sup> L. Könözsy, P. Scienza, D. Drikakis, Validation of a magneto- and ferro-hydrodynamic model for non-isothermal flows in conjunction with Newtonian and non-Newtonian fluids, VII European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2016), June 5-10, Crete, Greece.
192. <sup>+</sup> A. Ciarella, C. Tsotskas, M. Hahn, NPM Werter, RD Breuker, CS Beaverstock, MI Friswell, Y. Yang, S. Özgen, A. Antoniadis, D. Drikakis, and P. Tsoutsanis A Multi-Fidelity, Multi-Disciplinary Analysis and Optimization Framework for the Design of Morphing UAV Wing, 16th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference, AIAA Aviation, (AIAA 2015-2326).
193. M. Papanikolaou, D. Drikakis, Molecular Dynamics Simulations of surface roughness effects on monatomic liquid flows, European Coating Symposium, Eindhoven, September 9-11, 2015.
194. Z. Rana, D. Drikakis, High Resolution Methods for the investigations in to the Low-Frequency Unsteadiness in SWBLI, IMA Conference on Numerical Methods for Simulation, 1 – 4 September 2015, Mathematical Institute, University of Oxford.
195. <sup>+</sup> Z. Rana, D. Drikakis, Low-Frequency Unsteadiness in 3D Shock-Wave/Boundary-Layer Interactions in a Supersonic Crossflow, Session FD-38, Unsteady Flow II, 53<sup>rd</sup> AIAA, Aerospace SciTech Conference 2015.
196. <sup>+</sup> A. Antoniadis, P. Tsoutsanis, D. Drikakis, Numerical Accuracy in RANS Computations of High-Lift Multi-Element Airfoil and Aircraft Configurations, Session FD-13, RANS/LES Applications, 53<sup>rd</sup> AIAA, Aerospace SciTech Conference 2015.



197. <sup>+</sup> A. Antoniadis, P. Tsoutsanis, Z. Rana, I. Kokkinakis, D. Drikakis, Azure: An Advanced CFD Software Suite Based on High-Resolution and High-Order Methods, Session FD-21, CFD Methods IV, 53<sup>rd</sup> AIAA, Aerospace SciTech Conference 2015.
198. <sup>+</sup> M. Frank, D. Drikakis, N. Asproulis, Investigation of the thermal conductivity of a Water-Copper nanofluid confined in a graphene nano-channel, Microfluidics Conference, UCL London, 2014.
199. <sup>+</sup> D. Drikakis, M. Frank, N. Asproulis, Advances and Challenges in Computational Research of Micro and Nano Flows, Microfluidics Conference, UCL London, 2014.
200. <sup>+</sup> M. Probyn, A. Aspden, B. Thornber, D. Drikakis, R. J. R. Williams, D. L. Youngs, Simulation of High Atwood Reshocked Richtmyer–Meshkov, 14<sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM14), San Francisco, 2014.
201. <sup>+</sup> I. Kokkinakis, D. Drikakis, D. L. Youngs, R. J. R. Williams Comparison of two-equation and multi-fluid turbulence models for Rayleigh-Taylor and Richtmyer-Meshkov mixing, 14<sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM14), San Francisco, 2014.
202. <sup>+</sup> P. Tsoutsanis, A.F. Antoniadis, D. Drikakis, Implicit Large Eddy Simulation using Second and Higher-Order Methods on Unstructured Meshes, 6<sup>th</sup> European Conference on Computational Fluid Dynamics, Barcelona, Spain, 2014.
203. <sup>+</sup> A.F. Antoniadis, P. Tsoutsanis, D. Drikakis, High-Order RANS Solutions for full aircraft and high-lift devices, Proceedings of the Royal Aeronautical Society Applied Aerodynamics Conference, Bristol, UK, 2014.
204. <sup>+</sup> M. Frank, D. Drikakis, N. Asproulis, Thermal behaviour of nanofluids confined in nanochannels, 11<sup>th</sup> International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, 2014.
205. <sup>+</sup> M. Papanikolaou, D. Drikakis, N. Asproulis, Multiscale Computational Modelling of Mechanical Properties of Polymers for Adaptive Aerospace Structures, 11<sup>th</sup> International Conference on Nanosciences and Nanotechnologies, Thessaloniki, Greece, 2014.
206. <sup>+</sup> C. Turquand d’Auzay, B. Thornber, D. Drikakis, Novel volume fraction approach for the Large Eddy Simulation of compressible premixed flame, Proceedings, Joint meeting of The British and Scandinavian-Nordic Sections of the Combustion Institute, pp. 63-64, 2014.
207. <sup>+</sup> M.G. Probyn, B. Thornber, D. Drikakis, R.J.R. Williams, D.L. Youngs, Reshock of Self-Similar Multimode Richtmyer–Meshkov Instability at High Atwood Number in Heavy-Light and Light- Heavy Configurations, European Turbulence Conference (ETC 14), 1-4 September 2013.
208. M. Papanikolaou, D. Drikakis, N. Asproulis, 6<sup>th</sup> DeMEASS Conference (Design, Modelling and Experiments of Advanced Structures and Systems), Delft University of Technology, , 25-28 May 2014.
209. <sup>+</sup> L. Könözsy, N. Asproulis, D. Drikakis, High-Resolution Characteristics-based Godunov-type Method for Modelling Acoustic Waves in conjunction with Incompressible Microscale Laminar Flow, The 15th International Conference on Fluid Flow Technologies, Conference on Modelling Fluid Flow (CMFF’2012), Budapest, Hungary, Vol. II, pp. 899-906, 2012.
210. P. Tsoutsanis, D. Drikakis, J. Lelieveld, ‘Modelling atmospheric flows on 3D hybrid unstructured meshes using high-order methods’, 3rd International EULAG Workshop, Loughborough, UK, 2012.
211. <sup>+</sup> P. Tsoutsanis, D. Drikakis, J. Lelieveld, ‘Large eddy simulation of turbulent flows on 3D hybrid unstructured meshes’, ECCOMAS 2012 Congress, Vienna, Austria, 2012. September 10-14, 2012, Vienna, Austria, Eds.: Eberhardsteiner, J.; Böhm, H.J.; Rammerstorfer, F.G., Publisher: Vienna University of Technology, Austria, ISBN: 978-3-9502481-9-7
212. <sup>+</sup> L. Könözsy, D. Drikakis “A Coupled High-Resolution Fractional-Step Artificial Compressibility and Pressure-Projection Formulation for Solving Incompressible Multi-Species Variable Density Flow Problem at Low Reynolds Numbers”, CD-ROM Proceedings of the 6th European Congress on Computational

Methods in Applied Sciences and Engineering (ECCOMAS 2012), September 10-14, 2012, Vienna, Austria, Eds.: Eberhardsteiner, J.; Böhm, H.J.; Rammerstorfer, F.G., Publisher: Vienna University of Technology, Austria, ISBN: 978-3-9502481-9-7

213. <sup>+</sup> A. F. Antoniadis, P. Tsoutsanis, D. Drikakis, 'High-order schemes on mixed-element unstructured grids for aerodynamic flows', 42nd AIAA Fluid Dynamics Conference and Exhibit, Louisiana, New Orleans, USA, 2012.
214. <sup>+</sup> A. Mihaiescu, D. Drikakis, D. L. Youngs, R. J. R. Williams, 'Comparison of the K-L and K- $\epsilon$  Turbulence Models for Compressible Mixing', 13<sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM12), Woburn, UK, 2012.
215. <sup>+</sup> L. Könözsy, D. Drikakis: "A Unified Fractional-Step Artificial Compressibility and Pressure-Projection Formulation for Solving Incompressible, Variable Density Mixing Layer Problem", IWPCTM'13, Woburn, UK, 2012, p. 39.
216. <sup>+</sup> T. Oggian, D. Drikakis, D. L. Youngs, R. J. R. Williams, 'Hybrid compressible-incompressible solution of Richtmyer-Meshkov Instability (RMI) at very-late times', 13<sup>th</sup> International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM12), Woburn, UK, , 2012.
217. <sup>+</sup> M.G. Probyn, B. Thornber, D. Drikakis, R.J.R. Williams, D.L. Youngs, '2D and 3D Single-Mode Richtmyer–Meshkov Instability', International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM13) , 16-20 July, 2012.
218. <sup>+</sup> M.G. Probyn, B. Thornber, D. Drikakis, R.J.R. Williams, D.L. Youngs, 'An Investigation into Non-Linear Growth Rate of 2D and 3D Single-Mode Richtmyer–Meshkov Instability', Proceedings of the International Turbulence Initiative (iTi 13), 1-3 October 2012.
219. <sup>+</sup> D. Mantzalis, N. Asproulis and D. Drikakis, "CO2 Diffusion within charged CNTs", 1st European Conference on Gas Micro Flows, Skiathos, Greece, June 2012.
220. <sup>+</sup> D. Mantzalis, N. Asproulis and D. Drikakis, "Simulated CO2 Adsorption In Carbon Nanopores", 1st European Conference on Gas Micro Flows, Skiathos, Greece, June 2012.
221. <sup>+</sup> Z.A. Rana, B. Thornber, D. Drikakis, "Large Eddy Simulation of the Fuel Injection in Scramjet Combustion Chambers", The Proceedings of the 7th Aero-Thermodynamics Symposium (7th-ATD Symp), Brugge (Belgium), 9th May 2011. ESA Special Publication SP-692, paper # 2218933.
222. <sup>+</sup> D. Mantzalis, N. Asproulis and D. Drikakis, "Carbon Nanotubes for filtering of Binary Mixtures", The Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing, Chania, Greece, September 2011.
223. <sup>+</sup> D. Mantzalis, N. Asproulis and D. Drikakis, "Binary Mixtures Filtering through Carbon Nanotubes", The 3rd Micro and Nano Flows Conference, Thessaloniki, Greece, August 2011.
224. <sup>+</sup> D. Mantzalis, N. Asproulis and D. Drikakis, 'Binary Mixture Filtering using Carbon Nanotubes', The Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing & The Second International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering 6-9 September 2011, Chania - Crete – Greece.
225. <sup>+</sup> D. Drikakis and N. Asproulis, "Computational Uncertainty in Hybrid Atomistic-Continuum Frameworks", In the 3rd Micro and Nano Flows Conference, Thessaloniki, Greece, August 2011.
226. <sup>+</sup> A.F. Antoniadis, K.H. Iqbal, N. Asproulis, E. Shapiro, D. Drikakis. 'Comparison of high-order Finite Volume and Discontinuous Galerkin methods on 3D unstructured grids', 9th International Conference of Numerical Analysis and Applied Mathematics, Halkidiki, Greece 2011
227. <sup>+</sup> D. Sourmaidou, S. Dufourmantelle, N. Asproulis, D. Drikakis, S. Pal, 'Oblique shock wave effects on biological membranes', 3rd Micro and Nano Flows Conference, Thessaloniki, Greece, 22-24 August 2011.

228. <sup>+</sup> N. Asproulis, D. Drikakis, Parallel Implementation of Hybrid Atomistic-Continuum Methods, Parallel CFD 2011, Barcelona May 2011
229. <sup>+</sup> P. T. Barton, B. Obadia, D. Drikakis, A conservative level-set based method for compressible solid/fluid problems on fixed grids, 28th International Symposium on Shock Waves, Manchester, 2011.
230. <sup>+</sup> B. Zhong, K.B. Tang, D. Drikakis, S. Guo, "Turbulent Flow Simulations for a High Lift Wing-Body Configuration", 49<sup>th</sup> AIAA Aerospace Sciences Meeting including the New Horizons Forum and Aerospace Exposition, Orlando, Florida, USA, 2011, AIAA-2011-1043.
231. <sup>+</sup> Z. Rana, D. Drikakis, An ILES Analysis of Transverse Jet Injection into Supersonic Cross-flow with Synthetic Turbulent Boundary Layer, 49<sup>th</sup> AIAA Aerospace Sciences Meeting including the New Horizons Forum and Aerospace Exposition, Orlando, Florida, USA, 2011, AIAA-2011-0231.
232. <sup>+</sup> Z. Rana, D. Drikakis, , Analysis of Hydrogen Injection into the Combustor of HyShot-II Scramjet Engine Using ILES, 49<sup>th</sup> AIAA Aerospace Sciences Meeting including the New Horizons Forum and Aerospace Exposition, Orlando, Florida, USA, 2011, AIAA-2011-0506.
233. <sup>+</sup> D. Drikakis(Keynote), E. Shapiro, I. Kokkinakis, C. Papachristou, "Implicit Large Eddy Simulation of Fluid Flow", HEFAT2010, 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, 19-21 July 2010, Antalya, Turkey.
234. <sup>+</sup> D. Mantzalis, N. Asproulis and D. Drikakis, "Molecular Studies of Self-Diffusion Coefficient for CO<sub>2</sub> Models", 2nd European Conference in Microfluidics, Toulouse, France, December 2010.
235. <sup>+</sup> D. Drikakis, M. Sourmaidou, S. Pal, "Computational Nanotechnology of Drug Delivery through Biological Membranes" ECCM 2010, IV European Conference on Computational Mechanics, Paris des Congrès, Paris, France, May 16-21, 2010.
236. <sup>+</sup> Z.A. Rana, B.J.R. Thornber, D. Drikakis "Investigation of Sonic Jet Mixing in a Stream of Supersonic Transverse Flow Using LES" 27th Congress of the International Council of the Aeronautical Sciences (ICAS-2010), Nice, France, 2010.
237. <sup>+</sup> D. Drikakis, F. Inok, "Computational uncertainty in turbulent flow simulations: Towards a numerical error bar", Proceedings of V European Conference on Computational Fluid Dynamics, ECCOMAS CFD 2010, J. C. F. Pereira and A. Sequeira (Eds), Lisbon, Portugal, 14-17 June 2010.
238. <sup>+</sup> V. Titarev, D. Drikakis, "High-order CFD methods on arbitrary unstructured meshes for complex aerospace configurations", 2010 RAeS Aerodynamics Conference Applied Aerodynamics: Capabilities and Future Requirements Tuesday 27 – Wednesday 28 July 2010.
239. <sup>+</sup> A. Antoniadis, G. Barakos, A. Brocklehurst, O. Boelens, M. Dietz, D. Drikakis, M. Embacher, W. Khier, T. Renaud, R. Steijl, L. Vigevano, B. Zhong, Assessment of CFD Methods against Experimental Flow Measurements for Helicopter Flows, 36th European Rotorcraft Forum, Paris (France) from 7th to 9th September 2010.
240. <sup>+</sup> V. Titarev, D. Drikakis, "Construction of very high-order accurate methods for Navier-Stokes equations on mixed-element unstructured meshes", ICCFD6 Conference, July 12 –16, St. Petersburg, Russia, 2010.
241. <sup>+</sup> B. Zhong, I. Kokkinakis, V. Titarev, A. Kokkalis and D. Drikakis, Analysis of Hot Film Signals and Flow Structure Interactions over a Helicopter Fuselage, 36th European Rotorcraft Forum, Paris (France) from 7th to 9th September 2010.
242. <sup>+</sup> J. Appleyrad, D. Drikakis, "Higher-order CFD and Interface Tracking Methods on GPU and MPI systems", ICFD 10 Conference, 12-15 April, Reading, 2010.
243. <sup>+</sup> R. Ma, B. Zhong, P. Q. Liu, and D. Drikakis, Multi-Objective Optimization Design of Low-Reynolds-

Number Airfoils, International Congress of the Aeronautical Sciences (ICAS), Nice, France, September 19-24, 2010

244. <sup>+</sup> P. Tsoutsanis, V. Titarev, D. Drikakis, "Construction of WENO schemes for arbitrary mixed-element unstructured meshes", ICFD 2010 Conference, 12-15 April, Reading, 2010.
245. <sup>+</sup> M. Hahn, D. Drikakis, D.L. Youngs, R.J.R. Williams, "LES of Richtmyer-Meshkov Mixing for inclined material interfaces with realistic surface finish", The 12th International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM12), Russia, July 12–17, 2010.
246. <sup>+</sup> D. Drikakis, A.N. Mihaiescu, D.L. Youngs, R.J.R. Williams, "Assessment of Two-Equation Turbulence Models for Rayleigh-Taylor and Richtmyer-Meshkov Mixing", The 12th International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM12), Russia, July 12–17, 2010.
247. <sup>+</sup> B. Thornber, D. Drikakis, D.L. Youngs, R.J.R. Williams "Physics of a Re-shocked Three-Dimensional Multimode Richtmyer-Meshkov Turbulent Layer", The 12th International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM12), Russia, July 12–17, 2010.
248. <sup>+</sup> S. Tissera, V. Titarev, D. Drikakis, Chemically Reacting Flows around a Double-cone, Including Ablation Effects, AIAA 2010-1285, 48th AIAA Aerospace Sciences Meeting Including the New Horizons Forum and Aerospace Exposition, 4 - 7 January 2010, Orlando, Florida.
249. <sup>+</sup> D. Drikakis (Keynote), M. Hahn, B. Thornber and E. Shapiro, "High-fidelity CFD simulations of instabilities, transition and turbulence using high-order methods and parallel computing, Proceedings of ParCFD2009, NASA Ames, 2009.
250. <sup>+</sup> D. Drikakis (Keynote), N. Asproulis "Multi-scale Computational Modelling of Flow and Heat Transfer", First International Conference on Computational Methods for Thermal Problems, September 8-10, 2009, Naples, Italy.
251. <sup>+</sup> N. Asproulis, D. Drikakis, "Thermal interaction effects in micro and nanofluid flows", Mini-symposium on micro channel flows and heat transfer, First International Conference on Computational Methods for Thermal Problems, September 8-10, 2009, Naples, Italy.
252. <sup>+</sup> Z.A. Rana, B.J.R. Thornber, D. Drikakis, "Simulations of the HyShot-II (Scramjet) Model Using High-Resolution Methods", AIAA 2009-4844, 45th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit, 2- 5 August 2009, Denver, Colorado.
253. <sup>+</sup> Z.A. Rana, B.J.R. Thornber, D. Drikakis, "CFD Analysis of a Scramjet Model Using High Resolution Methods" European Air & Space Conference, Manchester, UK. (CEAS-2009).
254. <sup>+</sup> M. Porton, E. Shapiro, D. Drikakis, E. Surrey, "Continuum-Transition Models of Neutraliser Gas Heating", 36th International Conference on Plasma Science and 23rd Symposium on Fusion Engineering, May 31 - June 5, San Diego, California, 2009.
255. <sup>+</sup> A. Mihaiescu, D. Drikakis, D. Youngs, R. Williams, "Turbulence modelling and Large Eddy Simulations for shock-induced instability and transition to turbulence", Turbulent Mixing and Beyond TMB-2009, Abdus Salam International Center for Theoretical Physics, Trieste, Italy, 27 July - 07 August, 2009.
256. <sup>+</sup> B. Thornber, D. Drikakis, D. Youngs, R. Williams, "The Three Dimensional Multimode Richtmyer-Meshkov Instability", Turbulent Mixing and Beyond TMB-2009, Abdus Salam International Center for Theoretical Physics, Trieste, Italy, 27 July - 07 August, 2009.
257. <sup>+</sup> A. Panaras, D. Drikakis, "High-speed unsteady flows around concave axisymmetric bodies: flow instabilities and their suppression," Proc. The 6th European Symposium on Aerothermodynamics for Space Vehicles, Versailles, France, 3–6 November 2008 (ESA SP-659, January 2009).
258. <sup>+</sup> Y. Shimada, B. Thornber and D. Drikakis, "Large Eddy Simulation of Turbulent Jet Flow in Gas Turbine Combustors", TI2009 Second International Conference on Turbulence and Interaction,

Karibea Resort Sainte-Luce Sainte-Luce, Martinique, 31th May - 5th June, 2009.

259. <sup>+</sup> M. Kalweit, D. Drikakis, "Multiscale simulation strategies and mesoscale modelling of gas and liquid flows", 2nd Micro and Nano Flows Conference, 1-2 September 2009.
260. <sup>+</sup> B. Zhong, F. Scheurich, V. Titarev, D. Drikakis, "Turbulent Flow Simulations Around a Multi-Element Airfoil Using URANS, DES, and ILES Approaches", AIAA paper 2009-3799, 19th AIAA Computational Fluid Dynamics Conference, San Antonio, Texas, 22-25 June, 2009.
261. <sup>+</sup> Xiao Wang, B. Zhong, S. Guo, D. Drikakis, "Turbulent Flow Simulations For Tip Vortices Of Subsonic/Transonic Wings With Or Without Winglets", 3rd European Conference for AeroSpace Sciences (EUCASS), Versailles, France, 6-9 July 2009.
262. <sup>+</sup> M. Lai, D. Drikakis "Molecular Dynamics investigation of salt-dependent diffusion coefficients of ssDNA oligomers in aqueous solution", 1st International Conference on Mathematical and Computational Biomedical Engineering - CMBE2009, June 29 - July 1, 2009, Swansea, UK.
263. <sup>+</sup> M. Lai, D. Drikakis, "Notes on the implementation of Brownian motion in mesoscopic fluid-particle models", 7th Industrial Simulation Conference, ISC'2009, June 1-3, 2009, Loughborough, UK.
264. <sup>+</sup> N. Asproulis, M. Kalweit and D. Drikakis, "Hybrid molecular-continuum methods for micro- and nanoscale liquid flows", 2nd Micro and Nano Flows Conference, 1-2 September 2009.
265. <sup>+</sup> M. Benke, E. Shapiro, D. Drikakis "Modelling the polymer migration phenomena in DNA-laden flows", 2nd Micro and Nano Flows Conference, 1-2 September 2009.
266. <sup>+</sup> D. Drikakis, C. Milionis, S. Pal, S. Patel and E. Shapiro, "Evaluation of computational and analytical models for blood perfusion in perforator flaps", Proceedings of the 1st International Conference on Mathematical and Computational Biomedical Engineering CMBE2009, June 29 - July 1, 2009, Swansea, UK.
267. <sup>+</sup> S. Liodice, D. Drikakis, A. Kokkalis, "Influence of vortex models on the prediction of 2D airfoil vortex interaction" 34th European Rotorcraft Forum 2008, Liverpool, 2008.
268. <sup>+</sup> N. Asproulis, M. Benke, M. Lai, E. Shapiro, D. Drikakis, D. Brown, M. Dawson, G. Pollard, P. Ioannou, V. Pouloupoulos, "Modelling approaches for micro- and nanoscale diffusion phenomena", Proceedings of the 1st International Conference on Process Intensification and Nanotechnology, 15-18 Sept 2008, Albany, New York, USA.
269. <sup>+</sup> B. Zhong, S. K. Yadav, D. Drikakis, "Turbulent flow simulations around an airfoil at high incidences using RANS, DES and ILES approaches" Proceedings of ERCOFTAC WORKSHOP on Direct and Large-Eddy Simulations (DLES7), University of Trieste - Abdus Salam International Centre for Theoretical Physics Trieste - Italy, September 8-10, 2008.
270. <sup>+</sup> N. Asproulis, M. Kalweit and D. Drikakis, "A Hybrid Molecular Continuum Method using Point Wise Coupling", Proceedings of the Sixth International Conference on Engineering Computational Technology, Eds. B. Topping and M. Papadrakakis, Civil-Comp Press, 2008.
271. <sup>+</sup> D. Drikakis, A. Mosedale, D. Youngs, R. Williams, "Large Eddy Simulation of Compressible Turbulent Mixing for Large-Scale Initial Perturbations", 11th International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM11), Santa Fe, 2008
272. <sup>+</sup> B. Thornber, D. Drikakis, D. Youngs, R. Williams, "On the Influence of Initial Conditions on the Richtmyer-Meshkov Instability", 11th International Workshop on the Physics of Compressible Turbulent Mixing (IWPCTM11), Santa Fe, 2008.
273. <sup>+</sup> J. Milnes, D. Drikakis, "Assessment of RANS/URANS models for Hypervapotron flow and heat transfer", 25th Symposium on Fusion Technology (SOFT 2008): SOFT 97, 15-19 September, Rostock, Germany 2008.
274. J. Milnes, D. Drikakis "Advanced CFD Strategies for Hypervapotron Flows and Heat Transfer",

IMechE Workshop Computational Fluid Dynamics Validation - How Much is Enough?, 2008.

275. <sup>+</sup> M Benke, E Shapiro, D Drikakis, "An efficient meta-modelling approach for DNA transport in micro and nanofluidics", Proceedings of the 1st International Conference on Nanotechnology, September 2008, Albany, New York, USA
276. <sup>+</sup> N Asproulis, M Benke, M Lai, E Shapiro, D Drikakis, "Modelling approaches for micro and nanoscale diffusion phenomena", Proceedings of the 1st International Conference on Nanotechnology, September 2008, Albany, New York, USA
277. <sup>+</sup> N. Asproulis, M. Kalweit, E. Shapiro and D. Drikakis, "Mesoscale flow and heat transfer modelling and application to liquid and gas flow", In Nanoscience and Nanotechnology Conference, Rome, Italy, October 2008
278. <sup>+</sup> M. Benke, E. Shapiro, D. Drikakis "FALCO - Fast Linear Corrector for Modelling DNA-laden Flows", Proceedings of the ASME 6th International Conference on Nanochannels, Microchannels and Minichannels, Paper ICNMM2008-62131, Darmstadt, June 23-25, 2008.
279. N. Asproulis, E. Shapiro, M. Kalweit, D. Drikakis, Multiscale modelling for flows and materials, Cranfield MultiStrand Conference, 6-7th May, 2008, Cranfield, UK
280. M. Benke, D. Drikakis, E. Shapiro, "Computational Nanotechnology for Biological Micro and Nanofluidics", Cranfield MultiStrand Conference, 6-7th May, 2008, Cranfield, UK
281. <sup>+</sup> P. Tsoutsanis, V. Titarev, D. Drikakis, "Very High-Order Godunov-Type Methods on Unstructured Hexahedral Meshes in Three Space Dimensions", 5th European Congress on Computational Methods in Applied Sciences and Engineering ECCOMAS 2008, Venice, Italy, 30 June - 4 July, 2008.
282. M. Benke, D. Drikakis, E. Shapiro, "New simulation tool for bio-nanofluidics", Cranfield Multi-Strand Conference, 6-7 May 2008.
283. <sup>+</sup> M. Kalweit, N. Asproulis, and D. Drikakis, "Nanofluidic applications of hybrid molecular-continuum methods", Proceedings of the 1st International Conference on Nanotechnology, September 2008, Albany, New York, USA.
284. Z. Zachariadis, D. Drikakis, E. Shapiro, "Computational Analysis of Advanced Aerofoil", Cranfield MultiStrand Conference, 6-7th May, 2008, Cranfield, UK
285. C. Papachristou, E. Shapiro and D. Drikakis, "Turbulence Modelling of Contaminant Dispersion in Environmental Flows", Cranfield MultiStrand Conference, 6-7th May, 2008.
286. A. Milonas, E. Shapiro and D. Drikakis, "Turbulent Flows in the Internal Environment: the case of the A380 Aircraft Cabin", Cranfield MultiStrand Conference, 6-7th May, 2008, Cranfield, UK.
287. <sup>+</sup> A. Mosedale, D. Drikakis, "Sensitivity to initial conditions of high-resolution and high-order LES schemes", Workshop on Quality and Reliability of Large Eddy Simulations, 24-26 October 2007, Leuven, Belgium.
288. <sup>+</sup> M. Hahn, D. Drikakis, "Assessment of LES for separated internal flow", Paper 2008-0667, 46th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada 7-10 January 2008.
289. <sup>+</sup> B. Thornber, D. Drikakis, "LES of compressible deep cavity flows using high-resolution methods", Paper 2008-0730, 46th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada 7-10 January 2008.
290. <sup>+</sup> M. Hahn, D. Drikakis, "Large-eddy simulation for swept wing flow using high-resolution methods", Paper 2008-0669, 46th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada 7-10 January 2008.
291. <sup>+</sup> E. Quaranta, G. Pantazopoulou, D. Drikakis "Acoustic modelling of engine compressor using a Boundary Element Method," 2nd European Conference for Aerospace Sciences, Brussels, Turbomachinery Session, July 1-6, 2007.
292. <sup>+</sup> S. Loiodice, D. Drikakis, A. Kokkalis "A Novel Aeroacoustic formulation applied to Helicopter" 33rd

European Rotorcraft Forum, 2007.

293. <sup>+</sup> N. Epiphaniou, M. Kalweit, D. Drikakis, G. Ball "Molecular Dynamics Simulations of Dynamic Friction and Mixing at Rapidly Moving Interfaces," Conference on Numerical methods for multi-material fluid flows, Czech Technical University in Prague on September 10-14, 2007.
294. <sup>+</sup> E. Romensky, D. Drikakis, "Conservative Formulation and Numerical Methods for Multiphase Compressible Media," Conference on Numerical methods for multi-material fluid flows, Czech Technical University in Prague on September 10-14, 2007.
295. <sup>+</sup> D. Drikakis, M. Hahn, A. Mosedale, E. Shapiro, B. Thornber, "Computational Uncertainty in CFD Associated with Spatial and Temporal Discretisation and Non-linear Methods Design" RTO AVT-147 Symposium in Athens, Greece, 1-4 October 2007.
296. <sup>+</sup> C. Thornber, D. Drikakis, "Numerical Dissipation of Godunov Schemes in Low Mach Flows", ICFD 2007 Conference Proceedings, 2007.
297. <sup>+</sup> E. Romenski, D. Drikakis, "Numerical Methods for Compressible Two-Phase Flow and Thermodynamically Compatible Systems of Hyperbolic Conservation Laws", ICFD 2007 Conference Proceedings, 2007.
298. <sup>+</sup> A. Mosedale, D. Drikakis, "Very high-order finite volume methods for multi-component flows," ICFD 2007 Conference Proceedings.
299. <sup>+</sup> B. Thornber, A. Mosedale, D. Drikakis, "Large-eddy simulation of Richtmyer-Meshkov Instability using High Resolution Methods", Turbulent Shear Flow Phenomena (TSFP7) Conference, 2007.
300. <sup>+</sup> O.J. Boelens, G. Barakos, M. Biava, A. Brocklehurst, M. Costes, A. D'Alascio, M. Dietz, D. Drikakis, J. Ekaterinaris, I. Humby, W. Khier, B. Knutzen, F. Le Chuiton, K. Pahlke, T. Renaud, T. Schwarz, R. Steijl, L. Sudre, L. Vigevano, B. Zhong, "The blind-test activity of the GOAHEAD project", 33rd European Rotorcraft Forum, 2007.
301. <sup>+</sup> F. Grinstein, D. Drikakis, C. Fureby, D. Youngs, "Transition and Turbulence Decay in the Taylor-Green Vortex," AIAA-2006-0698, 44th AIAA Aerospace Sciences Meeting and Exhibit, 2006.
302. <sup>+</sup> S. Patel, D. Drikakis, "Large Eddy Simulations of Transitional and Turbulent Flows in Synthetic Jet Actuators", IUTAM symposium on flow control and MEMS, Imperial College, 19 - 22 September 2006.
303. <sup>+</sup> S. Patel, D. Drikakis, "Large Eddy Simulations of Synthetic Jet Actuators" European Drag Reduction and Flow Control Meeting, Orlandi, Choi & Leonardi, Ischia, Italy, 10th-14th April 2006.
304. <sup>+</sup> G. Bernardini, H. Brouwera, L.M.B.C. Campos, D. Drikakis, M. Gennaretti, M. Hounjeta, A. Kokkalis, F. Laub, S. Loiodice, G. Perez, R. Ponzà, "Assessment of computational tools for rotor blade induced noise", Paper AC04, Proceedings of the 32nd European Rotorcraft Forum, Maastricht, The Netherlands, 12th-14th September 2006.
305. <sup>+</sup> E. Shapiro, D. Drikakis, J. Gargiuli, P. Vadgama, "Interface capturing in dual-flow microfluidics", CD-Rom Proceedings of the ECCOMAS CFD 2006 Conference, 5-8 September, 2006 Egmond aan Zee, The Netherlands.
306. <sup>+</sup> E. Shapiro, D. Drikakis, J. Gargiuli, P. Vadgama, "Microfluidic Cell Optimization for Polymer Membrane Fabrication", Proceedings of the ASME ICNMM 2006, 4th International Conference on Nanochannels, Microchannels and Minichannels, 19-21, June, 2006, Limerick, Ireland.
307. <sup>+</sup> B. Thornber, D. Drikakis, D. Youngs, "Large-eddy simulation of multi-component compressible turbulent flows using high resolution methods", Proceedings of the Conference on Turbulence and Interactions TI2006, May 29 - June 2, 2006, Porquerolles, France.
308. <sup>+</sup> B. Thornber, D. Drikakis, "Large Eddy Simulation of Isotropic Homogeneous Decaying Turbulence", CD-Rom Proceedings of the ECCOMAS CFD 2006 Conference, 5-8 September, 2006

Egmond aan Zee, The Netherlands.

309. <sup>+</sup> B. Thornber, D. Drikakis, "ILES of Shock Waves and Turbulent Mixing Using Riemann Solvers and TVD Methods", CD-Rom Proceedings of the ECCOMAS CFD 2006 Conference, 5-8 September, 2006 Egmond aan Zee, The Netherlands.
310. <sup>+</sup> S. Patel, D. Drikakis, "Flux Limiting Schemes for Implicit Large Eddy Simulation of Synthetic Jets", Proceedings of The Fourth International Conference on Computational Fluid Dynamics, Ghent, Belgium, 10-14 July, 2006.
311. <sup>+</sup> G. Pantazopoulou, D. Drikakis, "Computational Modelling of Acoustic Scattering from a Cylindrical Duct with a Rotor into Uniform Mean Flow", CD-Rom Proceedings of the ECCOMAS CFD 2006 Conference, 5-8 September, 2006 Egmond aan Zee, The Netherlands.
312. <sup>+</sup> S. Patel, D. Drikakis, "Large Eddy Simulation of Bifurcating and Transitional Suddenly Expanded Flows", CD-Rom Proceedings of the ECCOMAS CFD 2006 Conference, 5-8 September, 2006 Egmond aan Zee, The Netherlands.
313. <sup>+</sup> D. Drikakis, C. Fureby, F. Grinstein, M. Hahn and D. Youngs, "MILES of transition to turbulence in the Taylor-Green vortex system", Proceedings of ERCOFTAC Workshop, Direct and Large Eddy Simulation-6, p. 133, (eds. Friedrich et al.) Poitiers, France, 2006.
314. <sup>+</sup> D. Drikakis, C. Fureby, F. Grinstein, M. Hahn and D. Youngs, "Transition and Turbulence Decay in the Taylor-Green Vortex", APS Meeting, Session Turbulence Simulations, Paper LP.00005, Chicago, 20-22 November, 2005.
315. <sup>+</sup> E. Shapiro, D. Drikakis, "Characteristics-based formulations for variable density incompressible flows with an arbitrary number of transported scalars", 13th Conference on Finite Element for Flow Problems, Swansea, 2005.
316. <sup>+</sup> E. Shapiro, D. Drikakis, "Characteristics-Based Formulations for Variable Density Incompressible Flows with an Arbitrary Number of Transported Scalars", Finite Element for Flow Problems, FEF05 IACM Special Interest Conference supported by ECCOMAS, 4-6 April, 2005, Swansea, Wales, UK.
317. <sup>+</sup> M. Hahn, D. Drikakis "Implicit large eddy simulation of turbulent flows using high-resolution methods," AIAA 2005-1285, AIAA Conference, Reno, Nevada, 2005.
318. <sup>+</sup> E. Shapiro, D. Drikakis, "High-Resolution Computational Modelling for Multi-material Flows", Proceedings of 3rd MIT Conference on Computational Fluid and Solid Mechanics, Elsevier, 2005.
319. <sup>+</sup> M. Hahn, D. Drikakis, "Implicit Large Eddy Simulation for Unsteady Turbulent Flows", NATO Symposium on Flow-Induced Unsteady Loads and the Impact on Military Applications, Budapest, Hungary, 25-29 April 2005.
320. <sup>+</sup> S. Patel, D. Drikakis "Effects of Preconditioning on the Accuracy and Efficiency of Incompressible Flows", CD-Rom Proceedings ICFD Conference, Oxford, 2004.
321. <sup>+</sup> M. Hahn, D. Drikakis, "Large Eddy Simulation of Compressible Turbulence Using High-Resolution Methods", CD-Rom Proceedings ICFD Conference, Oxford, 2004.
322. <sup>+</sup> S. Patel, D. Drikakis, "Prediction of flow instabilities and transition using high-resolution methods", CD-Rom Proceedings of the ECCOMAS Congress 2004.
323. <sup>+</sup> M. Kalweit, D. Drikakis "Computational Nanoclusters", CD-Rom Proceedings of the ECCOMAS Congress 2004.
324. <sup>+</sup> S. Patel, D. Drikakis "Numerical Effects on the Prediction of Flow Instabilities in Channels with Sudden Expansions", Proceedings of IMECE'03, 2003 ASME International Mechanical Engineering Congress & Exposition, Washington, D.C., November 16-21, 2003.
325. <sup>+</sup> S. Patel, D. Drikakis "Fluid Flow Bifurcation in Micro-Channels", Proceedings of IMECE'03, 2003



ASME International Mechanical Engineering Congress & Exposition, Washington, D.C., November 16-21, 2003.

326. <sup>+</sup> G. Barakos and D. Drikakis, "Numerical modelling of fluid-structure interaction problems" in Progress in Computational Flow-Structure Interaction, eds. W. Haase, V. Selmin and B. Winzell, Notes on Numerical Fluid Mechanics and Multidisciplinary Design, Vol. 81, 125-132, Springer 2002.
327. <sup>+</sup> D. Drikakis, F.A. Fooker, D. Vassileva, "Computation of Compressible Cavity Flows Using High Resolution Methods", Proceedings of the CEAS Aerospace Aerodynamics Research Conference, June 2002, Cambridge, UK.
328. <sup>+</sup> D. Drikakis, P.K. Smolarkiewicz, L. Margolin, "'Spurious' Eddies", (7 pages) Proceedings of ICFD Conference on Numerical Methods for Fluid Dynamics, (ed M.J. Baines), pp. 289-296, Oxford Univ. Computing Laboratory, 26-29 March 2001.
329. <sup>+</sup> D. Drikakis "Numerical Issues in Very Large Eddy Simulation", (20 pages) Proceedings of the ECCOMAS CFD Conference 2001, Swansea, Sept. 2001. G. Barakos and D. Drikakis, "NACA64A010 2DOF Aerofoil" in Progress in Computational Flow-Structure Interaction, eds. W. Haase, V. Selmin and B. Winzell, Notes on Numerical Fluid Mechanics and Multidisciplinary Design, Vol. 81, 343-350, Springer 2002.
330. <sup>+</sup> F. Mallinger, D. Drikakis "Shear Instability in Post-Stenotic Arterial Flows", Proceedings of Turbulence Shear Flow Phenomena 2 Conference, 2001.
331. <sup>+</sup> F. Mallinger, D. Drikakis "Turbulence in Pulsatile Flow Through a Stenosis", Proceedings of the Int. Workshop on Breaking Symmetry in Haemodynamics, London (2001).
332. <sup>+</sup> G. Barakos and D. Drikakis, "NACA0012 Aerofoil, 2D Steady and Unsteady" in Progress in Computational Flow-Structure Interaction, eds. W. Haase, V. Selmin and B. Winzell, Notes on Numerical Fluid Mechanics and Multidisciplinary Design, Vol. 81, 225-236, Springer 2002.
333. <sup>+</sup> G. Barakos and D. Drikakis, "NACA0012 Wing Steady and Unsteady" in Progress in Computational Flow-Structure Interaction, eds. W. Haase, V. Selmin and B. Winzell, Notes on Numerical Fluid Mechanics and Multidisciplinary Design, Vol. 81, 243-250, Springer 2002.
334. <sup>+</sup> P. Neofitou, D. Drikakis "Non-Newtonian Modelling Effects on Stenotic Channel Flows," Proceedings of the ECCOMAS CFD Conference 2001, Swansea, Sept. 2001.
335. <sup>+</sup> F. Mallinger, D. Drikakis "Direct Numerical Simulation of Pulsatile Flows in Three-Dimensional Arterial Stenoses," Proceedings of the First MIT Conference on the Computation of Fluids and Structures, (2001).
336. <sup>+</sup> D. Drikakis, O. Iliev, D. Vasileva "On Multigrid Methods for the Compressible Navier-Stokes Equations," 3rd International Conference on "Large-Scale Scientific Computations" June 6-10, 2001, Bulgaria.
337. <sup>+</sup> D. Drikakis "A Memory Integral Model for Large Eddy Simulation," Proceedings of the ECCOMAS CFD Conference 2001, Swansea, Sept. 2001.
338. <sup>+</sup> A. Bagabir and D. Drikakis "Comparative Study of HLL, HLLC and Hybrid Riemann Solvers in Unsteady Compressible Flows," In Godunov Methods: Theory and Applications, Kluwer Academic Publishers, (ed. E.F. Toro), pp. 69-75, accepted, in press (2001).
339. <sup>+</sup> D. Drikakis and A. Bagabir "On Godunov-type Methods for Low Mach Number Flows," Invited paper, CD-Rom Proceedings of the ECCOMAS Conference, Forum: "Low Mach Number Flows", Barcelona, 2000.
340. <sup>+</sup> D. Drikakis and G. Barakos "Numerical Developments in Unsteady Aerodynamic Flows," Invited paper, CD-Rom Proceedings of the ECCOMAS Conference, Forum: "CFD in Aeronautics", Industrial Technology Session organised by CEC, Barcelona, 2000.

341. <sup>+</sup> G. Barakos, D. Drikakis, "Effects of turbulence closures on the prediction of buffeting flows", Proceedings of the Aerodynamics Conference 2000, Royal Aeronautical Society, pp. 1-14, 2000.
342. <sup>+</sup> J. Rokicki, J. Zoltak, D. Drikakis, J. Majewski, "Parallel overlapping-mesh algorithm", Invited paper, Applications of High-Performance Computing in Engineering VI, eds. M. Ingber, H. Power and C.A. Brebbia, pp. 335-344, WIT Press 2000.
343. <sup>+</sup> D. Drikakis, O. Iliev, D. Vassileva "An adaptive-smoothing multigrid method for the Navier-Stokes equations," Lecture Notes in Computational Science and Engineering, (eds. E. Dick et al.), Springer, pp. 94-100, 2000.
344. A. Bagabir, D. Drikakis "On the Richtmyer-Meshkov instability produced by blast-wave propagation in an enclosure," Proceedings of the 22nd Symposium on Shock Waves, eds. G.J. Ball et al., pp. 865-870, 1999.
345. <sup>+</sup> A. Bagabir, D. Drikakis "Shock-diffraction phenomena and coherent structures during the interaction of a shock wave with a bubble," Proceedings of the 22nd Symposium on Shock Waves, eds. G.J. Ball et al., pp. 1059-1064, 1999.
346. <sup>+</sup> O. Goyon, D. Drikakis, M.A. Leschziner "Computation of 3D unsteady flows with moving boundaries using hybrid-unstructured grids and non-linear eddy-viscosity turbulence models," ASME Paper FEDSM99-7013, CD-Rom Proceedings of ASME Fluids Engineering Division, Summer Meeting, July 18-23, San Francisco, 1999.
347. <sup>+</sup> J. Rokicki, D. Drikakis, J. Majewski, J. Zoltak "Parallel Performance of Chimera Overlapping Mesh Technique," in High Performance Computing and Networking (eds. P. Sloot et al.), Lecture Notes in Computer Science 1593, pp. 1015-1024, Springer, 1999.
348. <sup>+</sup> G. Barakos and D. Drikakis "Numerical Simulation of Transonic Buffet Flows Using Various Turbulence Closures," Proceedings of the First International Symposium on Turbulence and Shear Flow Phenomena, pp. 995-1000, eds. S. Banerjee and J.K. Eaton, Begell House Inc., 1999.
349. <sup>+</sup> A. Spentzos, D. Drikakis "Study of flow stability using direct numerical simulation of the disturbance equations," Proceedings of the Institute of Mathematics Conference "Cardiovascular Flow Modelling and Measurement with Application to Clinical Medicine," (7-9 September 1998, Salford UK), eds S.G. Sajjadi, G.B. Nash, M.W. Rampling, 8 pages, 1999.
350. <sup>+</sup> P. Neofitou, D. Drikakis, M.A. Leschziner, "Study of Newtonian and non-Newtonian fluid flow in a channel with a moving indentation," Proceedings of the Institute of Mathematics Conference "Cardiovascular Flow Modelling and Measurement with Application to Clinical Medicine," (7-9 September 1998, Salford UK), eds S.G. Sajjadi, G.B. Nash, M.W. Rampling, 8 pages, 1999.
351. <sup>+</sup> G. Barakos, D. Drikakis "Numerical study of unsteady aerodynamic flows," 1999 Royal Aeronautical Society Aerodynamics Research Forum, Book of abstracts, page 24, January 1999.
352. <sup>+</sup> A. Bagabir, D. Drikakis, "Study of flow instabilities and coherent structures in blast wave flows," 1999 Royal Aeronautical Society Aerodynamics Research Forum, Book of abstracts, page 28, January, 1999.
353. <sup>+</sup> G. Barakos, D. Drikakis, M.A. Leschziner, "Numerical investigation of the dynamic stall phenomenon using non-linear eddy-viscosity models," Invited paper, AIAA Paper 98-2740, Proceedings of the 16th Applied Aerodynamics Conference, June 15-18, 1998, Albuquerque, New Mexico.
354. <sup>+</sup> D. Drikakis, "The equations for the coherent structures dynamics in turbulent flows," ASME Paper FEDSM98-4951, Proceedings of the 1998 ASME Fluids Engineering Division, Summer Meeting, June 21-25, Washington DC, 1998.
355. <sup>+</sup> D. Drikakis, J. Zoltak, "An implicit hybrid flux vector splitting scheme for unsteady flows with

strong shock waves," ASME Paper FEDSM98-4925, Proceedings of the 1998 ASME Fluids Engineering Division, Summer Meeting, June 21-25, Washington DC, 1998.

356. <sup>+</sup> O. Goyon, D. Drikakis, M.A. Leschziner, " Three-dimensional unsteady Navier-Stokes computations using hybrid unstructured grids," ASME Paper FEDSM98-4924, Proceedings of the 1998 ASME Fluids Engineering Division, Summer Meeting, June 21-25, Washington DC, 1998.
357. <sup>+</sup> D. Drikakis and A. Spentzos "Study of flow bifurcation phenomena using a parallel characteristics based method," Parallel Computational Fluid Dynamics: Recent Developments and Advances Using Parallel Computers, Elsevier Science B.V., eds. D. Emerson et al., pp. 317-324, 1998.
358. <sup>+</sup> D. Drikakis, O.P. Iliev and D.P. Vassileva "A multigrid algorithm for the artificial compressibility formulation of the 3D Navier-Stokes equations," Notes on Numerical Fluid Mechanics, Vol. 62, eds. M. Griebel et al., Friedr. Vieweg & Sohn Verlag., pp. 260-268, 1998.
359. <sup>+</sup> G. Barakos, D. Drikakis "Study of unsteady aerodynamic flows using advanced turbulence models," 1998 Royal Aeronautical Society Aerodynamics Research Forum, Book of abstracts, pp. 10, January, 1998.
360. <sup>+</sup> G. Barakos, D. Drikakis, "Unsteady separated flow over manoeuvring lifting surfaces," EUROMECH Colloquium 384: on Steady and Unsteady Separated Flows, Manchester, UK, July 6-9, 1998.
361. <sup>+</sup> G. Barakos, D. Drikakis "Validation of linear and non-linear low-Re turbulence models in shock boundary layer interaction," Proceedings of the 11th Symposium on Turbulent Shear Flows, Grenoble, France, September 8-11, Vol. 3, pp. 32-19--32-24, 1997.
362. <sup>+</sup> B. De Maio, G. Barakos, D. Drikakis "Investigation of the near wall behaviour of low-Re turbulence models," Numerical Methods in Laminar and Turbulent Flow, eds. C. Taylor & J. Cross, Vol X, pp. 275-283, Pineridge Press, 1997.
363. <sup>+</sup> D. Drikakis "Advanced Computational Methods for Simulation of Shock Waves and Fluid-Structure Interaction," Proceedings of Workshop of Simulation of Underwater Explosions Phenomena, DERA (organiser Bob Haxton), Dunfermline, 27-29 May 1997.
364. <sup>+</sup> G. Barakos, D. Drikakis "Shock wave boundary layer interaction: Validation of linear and non-linear low-Re turbulence models in conjunction with new implicit methods," 1997 Royal Aeronautical Society Aerodynamics Research Forum, Book of abstracts, pp. 17, January, 1997.
365. <sup>+</sup> J. Majewski, J. Rokicki, J. Zoltak, D. Drikakis "Parallelisation of overlapping mesh techniques for compressible flows," Applications of High Performance Computing in Engineering V, (eds. H. Power, J.J.C. Long), Series Advances in High performance Computing, Volume 3 (ed. H. Power), pp. 235-244, Publisher Computational Mechanics Publications (Southampton and Boston), 1997.
366. <sup>+</sup> L. Temmerman, G. Barakos, D. Drikakis "Simulation of Bingham-Plastic Flow by an Upwind Finite Volume Characteristics-Based Method," ASME Paper FEDSM97-3037, Proceedings of the 1997 Fluids Engineering Division, Summer Meeting, Vancouver, Canada, June 22-26, 1997.
367. <sup>+</sup> G. Barakos, D. Drikakis "Simulation of unsteady aerodynamic flows using low-Re wall-distance-free turbulence models," ASME Paper FEDSM97-3651, Proceedings of the 1997 Fluids Engineering Division, Summer Meeting, Vancouver, Canada, June 22-26, 1997.
368. <sup>+</sup> D. Drikakis, U.C. Goldberg "Validation of low-Re two- and three-equation wall-distance-free turbulence models," ASME Paper FEDSM97-3149, Proceedings of the 1997 Fluids Engineering Division, Summer Meeting, Vancouver, Canada, June 22-26, 1997.
369. <sup>+</sup> J. Majewski, J. Rokicki, J. Zoltak, D. Drikakis "Development of overlapping mesh technique for implicit Riemann solvers," Proceedings of the Second Seminar on Recent Research and Design Progress in Aeronautical Engineering and its Influence on Education, ed. Z. Goraj, published by the

Inst. of Aeronautics and Applied Mech. at Warsaw Univ. of Technology, Research Bulletin No. 6, pp. 237-242, 1997.

370. <sup>+</sup> D. Drikakis, R. Zahner "Investigation of the efficiency of a 3D Parallel Implicit and Multiblock Navier-Stokes Solver," *Parallel Computational Fluid Dynamics: Algorithms and Results using Advanced Computers*, eds. P. Schiano et al., Elsevier Science B.V., pp. 289-296, 1997.
371. <sup>+</sup> D. Drikakis "Study of Compressible Flow Bifurcation Phenomena in Sudden Expansions," *Computational Fluid Dynamics'96*, pp. 312-318, (eds. Desideri et al.), John Wiley & Sons Ltd., 1996.
372. <sup>+</sup> D. Drikakis, D. Ofengeim "Study of Unsteady Viscous Flows with Shock-Waves Using Adaptive-Grid Solvers," *Proceedings of the First International Symposium on Finite Volumes for Complex Applications*, eds. F. Benkhaldoun & R Vilsmeier, pp. 651-659, Hermés Publisher, Paris, 1996.
373. <sup>+</sup> G. Barakos, D. Drikakis "A Strongly Implicit Finite Volume Method for Complex Turbulent Flows," *Proceedings of the First Int. Symposium on Finite Volumes for Complex Applications*, eds. F. Benkhaldoun & R Vilsmeier, pp. 459-467, Hermés Publisher, Paris, 1996. D. Ofengeim, E. Timofeev, A. Galyukov, P. Voinovich, D. Drikakis, N. Satofuka "A Locally Adaptive Structured/Unstructured 2D/3D Navier-Stokes Finite Volume Solvers for Steady and Unsteady Compressible Flows," *Computational Fluid Dynamics'96*, pp. 187-192, eds. Desideri et al., John Wiley & Sons Ltd., 1996.
374. <sup>+</sup> D. Drikakis, G. Papadopoulos "Experimental and Numerical Investigation of Laminar-to-Transitional Pipe Flow Past a Sudden Expansion," *Proceedings of the 1996 ASME Fluids Eng. Division, Summer Meeting, San Diego, California, July 7-11, 1996, Vol. 2*, pp. 679-684.
375. <sup>+</sup> D. Drikakis, R. Zahner "Study of Incompressible Flows in Rectangular Channels Using High Order Schemes and Parallel Computing," *Notes on Numerical Fluid Mechanics*, Vol. 53, pp. 52-59, eds. M Deville & S. Gavrilakis, Vieweg, Braunschweig, 1996.
376. <sup>+</sup> G. Barakos, D. Drikakis "Implicit methods and wall-distance-free turbulence models for unsteady flows over oscillating aerofoils," *Proceedings of European Mechanics Colloquium 349 on Simulation of Fluid-Structure Interaction in Aeronautics*, pp 1-9, 16-18 Sept., DLR Germany, 1996.
377. <sup>+</sup> D. Drikakis "Development and Implementation of Parallel High Resolution Schemes in 3D Flows over Bluff Bodies," *Parallel Computational Fluid Dynamics: Implementation and Results Using Parallel Computers*, eds. A. Ecer, J.Periaux, N. Satofuka and S. Taylor, pp. 191-198, Elsevier Science B.V., 1995.
378. <sup>+</sup> D. Drikakis, R. Zahner "A Parallel Multiblock Method for 3D Incompressible Flows in Complex Geometries," *Applications of High Performance Computing in Engineering*, eds. H. Power, Computational Mechanics Publications, pp. 211-218, 1995.
379. <sup>+</sup> L. Skerget, D. Drikakis "A Boundary Element Method for Velocity-Vorticity and Comparison with a High Order Finite Volume Scheme," *Computational Mechanics'95: Theory and Applications*, Vol. 2, Springer Verlag, pp. 2921-2926, eds. S.N. Alturi et al., 1995.
380. <sup>+</sup> D. Drikakis, F. Durst "Computation of Aerodynamic Flows Using Improved Parallelization Procedures," *Parallel Computational Fluid Dynamics: New Trends and Advances*, pp. 109-117, (eds. A. Ecer et al.), Elsevier Science B.V., 1995.
381. <sup>+</sup> D. Drikakis, L. Skerget "A Study of the Accuracy and Efficiency of Finite Volume and Boundary Element Methods in Laminar Separated Flows," *Computational Mechanics'95: Theory and Applications*, Vol. 2, Springer Verlag, pp. 2969-2974, eds. S.N. Alturi et al., 1995.
382. <sup>+</sup> D. Drikakis, F. Durst "Study of Extended Flow Separation on Parallel Machines," *Notes on Numerical Fluid Mechanics*, Vol. 47 (eds. F. K. Hebeker et al.), pp. 62-69, Friedr. Vieweg & Sohn Verlag, 1994.
383. <sup>+</sup> D. Drikakis, M. Schäfer "Comparison between a pressure correction method and an artificial compressibility/characteristic based method in parallel incompressible fluid flow computations,"

Computational Fluid Dynamics' 94, eds. S. Wagner et al., John Wiley & Sons, pp. 619-626, 1994.

384. <sup>+</sup> D. Drikakis "Die Entwicklung von 3D inkompressiblen und kompressiblen Navier-Stokes Verfahren in der numerische Aerodynamik," 7th STAB Workshop im DLR Forschungszentrum Göttingen, 10-12 November, pp. 277-279, ed. H.-J. Heinemann, Geschäftsstelle der AG STAB, 1994.
385. <sup>+</sup> D. Drikakis, "Parallel Upwind High-Order Methods," Proceedings of the EUROMECH Colloquium 315 on Efficient Numerical Methods and Parallel Computing in Fluid Mechanics, 7-9 March 1994, Erlangen, Germany.
386. <sup>+</sup> D. Drikakis, E. Schreck, F. Durst "A Comparative Study of Numerical Methods for Incompressible and Compressible Flows on Different Parallel Machines," AIAA Paper 94-0412, Proceedings of the 32nd AIAA Conference, Aerospace Sciences Meeting, Reno, Nevada, January 10-13, 1994.
387. <sup>+</sup> D. Drikakis, F. Durst "Numerical simulation of three-dimensional incompressible flows by using high order schemes," Proceedings of the Second Summer Conference on Numerical Modelling in Continuum Mechanics: Theory, Algorithms, and Applications, pp. 79-88 (Vol. II), eds. M. Feistauer, R. Rannacher & K. Kozel, Charles University, Prague, August 22-25, 1994.
388. <sup>+</sup> D. Drikakis, F. Durst "Numerical Investigation of Viscous Compressible Flows with Separation on Parallel Computers," Proceedings of the German Aeronautics and Aerospace Congress 1994, published by DGLR, ed. G. Buergener, Paper 94-C2-049, Vol. I, pp. 347-405, 1994.
389. <sup>+</sup> D. Drikakis, E. Schreck "Development of Implicit Navier-Stokes Methods on MIMD Multi-Processor Systems," AIAA Paper 93-0062, Proceedings of the 31st AIAA Conference, Aerospace Sciences Meeting, Reno, Nevada, 11-14 January, 1993.
390. <sup>+</sup> F. Durst, D. Drikakis, M. Schäfer "Parallelisierung effizienter Berechnungsverfahren von Aerodynamischen Strömungen auf modernen Rechnerarchitekturen," 6th STAB Workshop im DLR Forschungszentrum Göttingen, 10-12 November, pp. 277-279, ed. H.-J. Heinemann, Geschäftsstelle der AG STAB, 1993.
391. <sup>+</sup> D. Drikakis, F. Durst "Numerical Study of Transonic Turbulent Separated Flows," Proceedings of 9th Symposium on Turbulent Shear Flows, Vol. 2, pp. 203-1--203-4, Kyoto, Japan, August 16-18, 1993.
392. <sup>+</sup> D. Drikakis, E. Schreck "Parallel Multi-Level Calculations for Viscous Compressible Flows," Proceedings of the 1993 ASME Fluids Engineering Conference June 20-24, Washington, DC, FED-Vol. 156, pp. 9-23, CFD Algorithms and Applications for Parallel Processors, eds. O. Baysal, and V. Saxena, Book No. H00796-1993, 1993.
393. <sup>+</sup> D. E. Panayotounakos, D. Drikakis "Closed-form solutions of the wave, diffusion and Burger's equation with source terms in fluid mechanics," XVIIIth Int. Congress of Theoretical and Applied Mechanics by IUTAM, Haifa, Israel, August 22-28, 1992.
394. <sup>+</sup> D. Drikakis, E. Schreck "Parallel numerical methods for incompressible and compressible flows," Proceedings of GAMM Workshop: Parallel solution methods for differential equations, Heidelberg, Germany, 6-7 November, 1992.
395. <sup>+</sup> D. Drikakis, S. Tsangaris "A multi-zonal local solution methodology for the accelerated solution of the Navier-Stokes equations," Proceedings of the 18th ICAS Congress, Paper ICAS-92-4.5.3, pp. 1012-1021, 1992.
396. <sup>+</sup> D. Drikakis, S. Tsangaris "On the accuracy and efficiency of CFD methods in real gas hypersonics," AGARD Conference Proceedings Vol. 514: Theoretical and Experimental Methods in Hypersonic Flows, pp. 401--40-15, 1992.
397. <sup>+</sup> D. E. Panayotounakos, D. Drikakis "Analytical Solutions of the Non-Linear 2D and 3D Axisymmetric Perturbation Equations in Aerodynamics," Proceedings of the 3rd National Congress on Mechanics, published by Hellenic Society for Theoretical and Applied Mechanics (ed. P.S. Theocharis), pp. 1-9,

Athens, 1992.

398. <sup>+</sup> G. Despotis, D. Drikakis, S. Tsangaris "Multigrid techniques for a conservative non-orthogonal projection method for incompressible flows," Proceedings of the 3rd National Congress on Mechanics, published by Hellenic Society for Theoretical and Applied Mechanics (ed. P.S. Theocharis), pp. 247-254, Athens, 1992.
399. <sup>+</sup> D. Drikakis, S. Tsangaris "High resolution flux splitting schemes up to fourth order of accuracy for the equations of gas dynamics," Proceedings of the 3rd National Congress on Mechanics, ed. P.S. Theocharis, pp. 216-222, Athens, Greece, June 26-29, 1992.
400. <sup>+</sup> D. Drikakis, S. Tsangaris "Navier-Stokes computations for high Reynolds number compressible flows over an axisymmetric body," Proceedings of the 1st National Congress on Computational Mechanics, Vol. II, pp. 663-670, published by University of Patras Press, 3-4 September, Athens, 1992.
401. <sup>+</sup> D. Drikakis, S. Tsangaris "Determination of Internal Gas Flow by Several High Order Methods," Proceedings of the International Symposium ECOS'92: On Efficiency Costs, Optimization and Simulation of Energy Systems, eds. A. Valero et al., ASME Publ. (Advanced Energy Systems Division), pp. 491-499, Zaragoza, Spain, June 15-18, 1992.
402. <sup>+</sup> D. Drikakis, S. Tsangaris "Laminar and turbulent viscous compressible flows using improved flux vector splitting," Notes on Numerical Fluid Mechanics, Vol. 35 (eds. J. B. Vos, A. Rizzi, I. Ryming), pp. 407-416, Vieweg Verlag., 1991.
403. <sup>+</sup> D. Drikakis, S. Tsangaris "Real gas effects for compressible nozzle flows," Proceedings of the International Conference: Analysis of Thermal and Energy Systems, pp. 971-982, eds. Kouremenos et al., ASME Publ. (Advanced Energy Systems Division), 1991.
404. <sup>+</sup> D. Drikakis, S. Tsangaris "Shock Capturing Method for Hypersonic Flows and Real Gas effects," Proceedings of the Int. Conference on Computational Engineering Science, ICES'91, ed. Atluri et al., 4 pages, Melbourne, Australia, August 12-16, 1991).
405. <sup>+</sup> D. Drikakis, S. Tsangaris "Improved mesh sequencing method for the accelerated solution of the compressible Euler and Navier-Stokes equations," Proceedings of the 17th ICAS Congress, Paper ICAS-90-6.10.1, Vol. 2, pp. 1999-2011, 1990.
406. <sup>+</sup> D. Drikakis, S. Tsangaris "Convergence Acceleration for a finite volume scheme of the Euler equations using mesh-sequencing," Proceedings of the 3rd Int. Congress of Fluid Mechanics, Vol. III, pp. 913-927, 1990.

**Appendix A: Research grants started/completed (2012-2017)**

<p>Grants obtained (started or completed) within the last 5 years; as Principal Investigator (PI) or Co-Investigator (Co-I). As Executive Dean of the Faculty of Engineering, I have led and continue to lead several Faculty wide projects that make significant contribution to the university finances. These projects are not listed below.</p>		
Sponsor	Grant value	Nature of collaboration
Oil and Gas Innovation Centre and Trevelyan Trading Ltd	£90,000	(Research Project) Computational Fluid Dynamics study of Oil and Gas systems.
Oil and Gas Innovation Centre and Tendeka (Swellfix) Ltd	£40,000 for Phase 1 plus additional funding (tbc) for follow up projects. (Principal Investigator)	(Research project) The project concerns a computational investigation of the performance of an Autonomous Inflow Control Device, which is used as a valve for oil production applications. Phase 2 will concern optimisation of the device.
AWE plc	£135,000 (Principal Investigator)	(Research project) The research concerns high-order large eddy simulations, as well as engineering turbulence and multi-scale modelling of shock physics and compressible turbulent mixing aiming to reduce the computational uncertainty in the modelling and simulation used by the Atomic Weapons Establishment (AWE plc) to support the safety and performance of nuclear weapons.
US Air Force (USAF) Office of Scientific Research	£136,932 (Principal Investigator)	(Research project) The project concerns computational modelling and simulation of supersonic/hypersonic transitional and turbulent flows and acoustic fatigue on the structures of hypersonic vehicles. I am also the Conference Chair of the first International Aerospace Symposium on Acoustic Fatigue to be held in Glasgow in September 2017.
Eaton Aerospace Ltd on behalf of Airbus (Toulouse)	£30,000 (Principal Investigator)	(KE, consultancy project) The project concerns the evaluation of the effectiveness of Nitrogen Enriched Air sparging for removing water from the aircraft fuel, and provides recommendations to industry with respect to health-and-safety and environmental issues associated with the release of fuel to the environment.
Engineering and Physical Sciences Research Council (EPSRC)	£572,579 (Co-I)	(Research project) An expanded high-end-computing (HEC) consortium aiming to investigate fundamental aspects of turbulence using numerical simulations. The project provides core allocation of HEC time to enable my research

		group to carry out simulations of world-leading quality.
AWE William Penney Fellowship	£180K (PI)	(Research project) Award in recognition of my contribution to compressible turbulent flows. The award is offered to world-renowned subject matter experts in scientific or engineering fields.
ESTOLAS (European Union funded project)	€108,208 (PI)	(Research project) The project concerned the development of a novel new type hybrid aircraft combining the best qualities of an airship, a plane, a helicopter and a hovercraft, aiming at extremely short takeoff and landing on any surface; ( <a href="http://www.estolas.eu">www.estolas.eu</a> )
CHANGE (European Union funded project)	€582,500 (PI)	(Research project) The CHANGE project aimed to insert novel morphing technologies into air transport aircraft, enabling the aircraft to fly with increased performance during the length of their mission. <a href="http://change.tekever.com/homepage">http://change.tekever.com/homepage</a>
MBDA	£14,000 (PI)	Research project on the applicability of molecular dynamics methods to study high-temperature effects on aerospace materials.
MBDA	£13,500 (PI)	Research project on CFD for Thrust Vectoring in Aerospace Systems aiming to improve the aerodynamic performance of rockets
MBDA	£13,500 (PI)	Consultancy on Statistical Methods
MBDA	£17,500 (PI)	Research project on Jetavator system performance using high-resolution Large Eddy Simulations on unstructured grids.
BAE Systems	£70K (PI)	Research project on Thermal Management - Avionics Chamber using nanomaterials.
EPSRC	£505,000 (Co-I)	Bridging Applied Nano-Technologists. Research project aiming to develop multi-scale methods and apply them to a broad range of engineering problems.
EPSRC	£375,528 (Co-I)	UK Turbulence Consortium. An expanded high-end computing (HEC) consortium aiming to investigate fundamental aspects of turbulence using numerical simulations.
Research Promotion Foundation (Cyprus)	€1,100,000 (PI)	A Multi-Teraflops Computing Facility for Computational Science and Technology



## B. Projects

### B.1 Direction of and participation in competitive research projects (Research Councils UK and European Union)

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**Project title:** Shock-Induced Turbulence and Acoustic Loading on Aerospace Structures

**Financing entity:** US Air Force, Office of Scientific Research

**Grant reference:** FA9550-15-1-0501

**Amount granted:** USD 190.464

**Duration:** from 2015 to 2017

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Autonomous Flow Control Device Optimization

**Financing entity:** Oil and Gas Innovation Centre

**Grant reference:** 160p\_46

**Amount granted:** GBP 38.600

**Duration:** from 2017 to 2017

**Principal Investigator:** Dimitris Drikakis

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**Project title:** UK Turbulence Consortium

**Financing entity:** Engineering and Physical

**Grant reference:** EPSRC

Sciences Research Council (EPSRC)

Reference: EP/L000261/1

Funded under:

EPSRC Research Topic Classifications:

Acoustics, Aerodynamics, Combustion, High Performance Computing

EPSRC Industrial Sector Classifications:

Aerospace, Defence and Marine

Funding scheme: Standard Research - NR1

**Amount granted:** GBP 572.579

**Duration:** from 01/07/2013 to 30/06/2018

**Co-Investigator:** Dimitris Drikakis

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**Project title:** CHANGE Combined morphing assessment software using flight envelope data and mission based morphing prototype wing development

**Financing entity:** European Commission

**Grant reference:** Project ID: 314139

Funded under: FP7-TRANSPORT

Record Number: 104265

**Amount granted:** Total Cost Euro 4.886.469

Participant Euro 582.499,60

**Duration:** from 01/08/2012 to 31/12/2015 **Principal Investigator:** Dimitris Drikakis

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**Project title:** ESTOLAS A novel concept of an extremely short take off and landing all-surface (ESTOLAS) hybrid aircraft: from a light passenger aircraft to a very high payload cargo/passenger version

**Financing entity:** European Commission

**Grant reference:** Project ID: 308968

Funded under: FP7-TRANSPORT

Funding scheme:

CP-FP - Small or medium-scale focused research project

Record Number: 103589

**Amount granted:** Total Euro 718.516

Participant Euro 108.208

**Duration:** from 01/05/2012 to 30/04/2014 **Principal Investigator:** Dimitris Drikakis

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**Project title:** DINAMICS Diagnostic NAnotech and MICrotech Sensors

**Financing entity:** European Commission

**Grant reference:** Project ID: 26804

Funded under: FP6-NMP

Funding scheme:

IP - Integrated Project

Programme: FP6-NMP

Record Number: 81557

**Amount granted:** Total Cost Euro 7.136.827

Participant Euro 650.000

**Duration:** from 01/04/2007 to 31/03/2011 **Principal Investigator:** Dimitris Drikakis

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**Project title:** Cy-Tera: A Multi-Teraflops Computing Facility for Science and Technology in Cyprus

**Financing entity:** Research Promotion Foundation, Cyprus

**Amount granted:** Euro 1.100.000

**Duration:** from 2011 to 2012 **Principal Investigator:** Dimitris Drikakis

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**Project title:** FRIENDCOPTER Integration of technologies in support of a passenger and environmentally friendly helicopter (FRIENDCOPTER)

**Financing entity:** European Commission

**Grant reference:** Project ID: 502773

Funded under: FP6-AEROSPACE

Record Number: 72786

**Amount granted:** Total Cost Euro 32.444.826

Participant Euro 247.000

**Duration:** from 01/03/2004 to 30/11/2009 **Principal Investigator:** Dimitris Drikakis

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**Project title:** Multiscale Modelling of Meso and Nano Scale Interfacial Dynamics Phenomena

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: EP/D051940/1

Funded under:

EPSRC Research Topic Classifications: Materials Characterisation, Materials testing & eng.

EPSRC Industrial Sector Classifications: No relevance to Underpinning Sectors

Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 249.728

**Duration:** from 02/10/2006 to 01/10/2009 **Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational and Theoretical Modelling of Shock-Induced Instability and Mixing across Material Interfaces

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: EP/C515153/1

Funded under:

EPSRC Research Topic Classifications: Aerodynamics, Fluid Dynamics

EPSRC Industrial Sector Classifications:

Manufacturing, Aerospace, Defence and Marine

Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 242.609

**Duration:** from 03/10/2005 to 02/01/2009 **Principal Investigator:** Dimitris Drikakis

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**Project title:** Generation of Advanced Helicopter Experimental Aerodynamic Database for CFD code Validation (GOAHEAD)

**Financing entity:** European Commission

**Grant reference:** Contract No:

AST4-CT-2005-516074

Funded under: European (6th RTD Framework Programme)

**Amount granted:** Participant, GBP 247K

**Duration:** from 07/2005 to 05/2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Advanced Mathematical and Computational Models for Complex Multiphase Flows

**Financing entity:** European Commission

**Grant reference:**

MOBILITY-2.3 - Marie Curie Incoming International Fellowships (IIF)

Call for proposal:

FP6-2004-MOBILITY-7

Funding scheme:

IIF - Marie Curie actions-Incoming International Fellowships

Project ID: 21368

Funded under: FP6-MOBILITY

Record Number: 78854

**Amount granted:** Euro 129.746

**Duration:** from 01/02/2006 to 31/01/2008

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Bridging Applied Nano-Technologists (Bridging ANTs)

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: EP/G069913/1

Funded under:

EPSRC Research Topic Classifications:

Assess/Remediate Contamination, Biomaterials, Energy Efficiency, Materials Synthesis & Growth, Networks & Distributed Systems

EPSRC Industrial Sector Classifications:

Environment, Energy, Manufacturing

Funding scheme: Standard Research

**Amount granted:** GBP 496.797

**Duration:** from 01/10/2009 to 31/03/2013

**Co-Investigator:** Dimitris Drikakis

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**Project title:** UK Turbulence Consortium

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: EP/G069581/1

Funded under:

EPSRC Research Topic Classifications:  
Aerodynamics, Numerical Analysis

EPSRC Industrial Sector Classifications:

No relevance to Underpinning Sectors

Funding scheme: Standard Research

**Amount granted:** GBP 375.52

**Duration:** from 19/07/2009 to 18/07/2014    **Co-Investigator:** Dimitris Drikakis

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**Project title:** Supercomputing Resources and Support for the UK Applied Aerodynamics Consortium 2 (2007-2010)

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: EP/F005954/1

Funded under:

EPSRC Research Topic Classifications:  
Aerodynamics

EPSRC Industrial Sector Classifications:

Aerospace, Defence and Marine

Funding scheme: Standard Research

**Amount granted:** GBP 24.289

**Duration:** from 01/09/2007 to 31/01/2011    **Co-Investigator:** Dimitris Drikakis

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**Project title:** Proposal for HPCx resources and support for the LESUK\_3 Consortium (2006-2008)

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: EP/D053994/1

Funded under:

EPSRC Research Topic Classifications:  
Aerodynamics

EPSRC Industrial Sector Classifications:

Aerospace, Defence and Marine

Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 61.542

**Duration:** from 01/02/2006 to 31/01/2009    **Co-Investigator:** Dimitris Drikakis

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**Project title:** DARP: Highly swept leading edge separations - Computational investigation

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: GR/S27436/01

Funded under:

EPSRC Research Topic Classifications:  
Aerodynamics

EPSRC Industrial Sector Classifications:

Aerospace, Defence and Marine

Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 228.850

**Duration:** from 01/09/2003 to 31/08/2007    **Co-Investigator:** Dimitris Drikakis

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**Project title:** In Situ Fabricated Membranes for Selectivity and Biocompatibility in Microanalytical Systems

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: GR/S13668/01

Funded under:

EPSRC Research Topic Classifications:  
Analytical Science, Chemical Biology,  
Electrochemical Science & Eng.,  
Fluid Dynamics, Materials Characterisation,  
Materials Processing, Separation Processes,  
Surfaces & Interfaces, Tissue Engineering

EPSRC Industrial Sector Classifications:

No relevance to Underpinning Sectors

Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 363.400

**Duration:** from 01/08/2003 to 31/08/2006    **Co-Investigator:** Dimitris Drikakis

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**Project title:** DARP: DEVELOPMENT OF TURBULENCE MODELS FOR COMPLEX STRAIN USING DNS DATA FOR SEPARATED & 3D FLOWS

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: GR/M85616/02

**Amount granted:** GBP 141.741

**Duration:** from 01/06/2001 to 30/04/2004    **Co-Investigator:** Dimitris Drikakis

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**Project title:** DARP: DEVELOPMENT OF TURBULENCE MODELS FOR COMPLEX STRAIN USING DNS DATA FOR SEPARATED & 3D FLOWS

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC

Reference: GR/M85616/01

**Amount granted:** GBP 193.688

**Duration:** from 01/08/2000 to 28/02/2001    **Co-Investigator:** Dimitris Drikakis

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**Project title:** MODELLING OF COHERENT STRUCTURES IN STEADY AND PERIODIC TURBULENT FLOWS

**Financing entity:** Engineering and Physical  
Sciences Research Council (EPSRC)

**Grant reference:** EPSRC  
Reference: GR/L71568/02  
Funded under:  
EPSRC Research Topic Classifications:  
Aerodynamics, Fluid Dynamics  
EPSRC Industrial Sector Classifications:  
No relevance to Underpinning Sectors  
Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 81.368

**Duration:** from 01/04/1999 to 08/06/2001 **Principal Investigator:** Dimitris Drikakis

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**Project title:** MODELLING OF COHERENT STRUCTURES IN STEADY AND PERIODIC TURBULENT FLOWS

**Financing entity:** Engineering and Physical  
Sciences Research Council (EPSRC)

**Grant reference:** EPSRC  
Reference: GR/L71568/01  
Funded under:  
EPSRC Research Topic Classifications:  
Aerodynamics, Fluid Dynamics  
EPSRC Industrial Sector Classifications:  
No relevance to Underpinning Sectors  
Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 40.322

**Duration:** from 01/03/1998 to 31/03/1999 **Principal Investigator:** Dimitris Drikakis

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**Project title:** STUDY OF UNSTEADY AERODYNAMIC FLOWS USING ADVANCED TURBULENCE MODELS

**Financing entity:** Engineering and Physical  
Sciences Research Council (EPSRC)

**Grant reference:** EPSRC  
Reference: GR/L18457/01  
Funded under:  
EPSRC Research Topic Classifications:  
Aerodynamics  
EPSRC Industrial Sector Classifications:  
Aerospace, Defence and Marine  
Funding scheme: Standard Research (Pre-FEC)

**Amount granted:** GBP 136.588

**Duration:** from 01/09/1996 to 31/08/1999 **Principal Investigator:** Dimitris Drikakis

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**Project title:** COMPUTATIONAL MODELLING OF FLOW IN SPOOL VALVES WITH PARTICULAR EMPHASIS ON RAPID CONTROL OF FUEL INJECTION

**Financing entity:** Engineering and Physical  
Sciences Research Council (EPSRC)

**Grant reference:** EPSRC  
Reference: GR/L20078/02

**Amount granted:** GBP 25.018

**Duration:** from 01/07/1999 to 31/10/2000 **Co-Investigator:** Dimitris Drikakis

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**Project title:** COMPUTATIONAL MODELLING OF FLOW IN SPOOL VALVES WITH PARTICULAR EMPHASIS ON RAPID CONTROL OF FUEL INJECTION

**Financing entity:** Engineering and Physical Sciences Research Council (EPSRC)

**Grant reference:** EPSRC  
Reference: GR/L20078/01

**Amount granted:** GBP 98.808

**Duration:** from 01/02/1997 to 30/06/1999    **Co-Investigator:** Dimitris Drikakis

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**Project title:** PEGAS Highly Efficient Parallel 3D CFD Codes for Industrial Applications

**Financing entity:** European Commission

**Grant reference:** Project ID: CP94-1239  
Funded under: IC-PECO/COPERNICUS  
Record Number: 30253  
Funding scheme:  
CSC - Cost-sharing contracts

**Amount granted:** GBP 356,000

**Duration:** from 01/03/1995 to 28/02/1998    **Principal Investigator:** Dimitris Drikakis

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**Project title:** Transient Aerodynamics for Railway System Optimisation

**Financing entity:** European Commission

**Grant reference:** Project ID: BRPR950067  
Funded under: FP4-BRITE/EURAM 3  
Funding scheme:  
CSC - Cost-sharing contracts  
Record Number: 31037

**Amount granted:** Not available

**Duration:** from 01/01/1996 to 03/06/1999    **Principal Investigator:** Dimitris Drikakis

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## B.2 Direction of and participation in industrial research projects

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**Project title:** William Penney Fellowship Award

**Financing entity:** AWE Plc

**Amount granted:** GBP 180.000

**Duration:** from 2008 to 2014

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** Development, Verification and Validation of Turbulence Models using Implicit Large Eddy Simulation

**Financing company/Administration:** AWE Plc

**Country:** UK

**Duration:** from 2015 to 2018

**Amount granted:** GBP 105.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** Efficiency of NEA Sparging of Aircraft Fuel

**Financing company/Administration:** Eaton Aerospace

**Country:** UK

**Duration:** from 2015 to 2016

**Amount granted:** GBP 30.000

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Applicability of MD Methods

**Financing entity:** MBDA Missile Systems

**Amount granted:** GBP 14.000

**Duration:** from 2012 to 2012

**Principal Investigator:** Dimitris Drikakis

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**Project title:** CFD Thrust Vectoring

**Financing entity:** MBDA Missile Systems

**Amount granted:** GBP 13.500

**Duration:** from 2013 to 2013

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Consultancy on Statistical Methods

**Financing entity:** MBDA Missile Systems

**Amount granted:** GBP 13.500

**Duration:** from 2013 to 2013

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Jetavator Performance Study 2

**Financing entity:** MBDA Missile Systems

**Amount granted:** GBP 17.500

**Duration:** from 2013 to 2013

**Principal Investigator:** Dimitris Drikakis

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**Project title:** European Network on Fusion (FUSENET)

**Financing entity:** European Union

**Amount granted:** GBP 13.000

**Duration:** from 2008 to 2012

**Principal Investigator:** Dimitris Drikakis

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**Project title:** HPC methods and models applied to optimisation of mixing processes

**Financing entity:** Chemring Group PLC

**Amount granted:** GBP 98.000

**Duration:** from 2009 to 2010

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational Fluid Dynamics Investigation of Flares

**Financing entity:** Chemring Group PLC

**Amount granted:** GBP 143.000

**Duration:** from 2009 to 2010

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational Fluid Dynamics investigation of hot/cold gas release system

**Financing entity:** Chemring Group PLC

**Amount granted:** GBP 126.000

**Duration:** from 2009 to 2010

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Investigation of shape change due to ablation

**Financing entity:** Lockheed Martin

**Amount granted:** GBP 40.000

**Duration:** from 2009 to 2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational Study of flow control

**Financing entity:** BAE Systems

**Amount granted:** GBP 46.000

**Duration:** from 2008 to 2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** High-performance computing study of autonomous vehicles

**Financing entity:** BAE Systems

**Amount granted:** GBP 38.000

**Duration:** from 2008 to 2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Multiscale Materials Modelling of Compressible Solids

**Financing entity:** AWE Plc

**Amount granted:** GBP 86.000

**Duration:** from 2008 to 2011

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational fluid dynamics study of fluid flow through arterial network of free flap

**Financing entity:** Mid Essex National Health Services (NHS) Trust

**Amount granted:** GBP 15.000

**Duration:** from 2007 to 2010

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Molecular dynamics investigation of controversies surrounding the alveolar surface

**Financing entity:** Mid Essex NHS Trust

**Amount granted:** GBP 15.000

**Duration:** from 2007 to 2010

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** A comparative study of low-Mach compressible methods

**Financing company/Administration:** AWE Plc

**Country:** UK

**Duration:** from 2009 to 2009

**Amount granted:** GBP 17.500

**Principal Investigator:** Dimitris Drikakis

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**Project title:** 3D computer model of stenotic artery: Computational Modelling of Korotkoff sound associated with turbulent arterial flow

**Financing entity:** St Thomas' and Guy's Hospital, London

**Amount granted:** GBP 10.000

**Duration:** from 2008 to 2008

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Assessment of Computational fluid dynamics for high-speed flows

**Financing entity:** DSTL (Defence Science and Technology Laboratory)

**Amount granted:** GBP 20.000

**Duration:** from 2008 to 2008

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Development of a Computational Model for Particle Beam Interaction with Liquid Lithium

**Financing entity:** UK Atomic Energy Authority

**Amount granted:** GBP 30.000

**Duration:** from 2007 to 2007

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Controversies surrounding the alveolar surface using computational nanoscience models

**Financing entity:** Broomfield Hospital

**Amount granted:** GBP 18.000

**Duration:** from 2008 to 2008

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational fluid dynamics hypersonic review (internal and external flows)

**Financing entity:** MBDA

**Amount granted:** GBP 30.000

**Duration:** from 2007 to 2007

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational nanotechnology study of shock waves interacting with material interfaces

**Financing entity:** AWE

**Amount granted:** GBP 35.000

**Duration:** from 2005 to 2008

**Principal Investigator:** Dimitris Drikakis

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**Project title:** A computational model to understand the physical mechanisms of suppression on cell proliferation

**Financing entity:** Mid Essex Hospital Services, NHS Trust

**Amount granted:** GBP 10.000

**Duration:** from 2005 to 2008

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Extracorporeal Shockwave Chemotherapy: A computational model to understand the physical mechanisms of suppression on cell proliferation

**Financing entity:** Mid Essex Hospital Services, NHS Trust

**Amount granted:** GBP 10.000

**Duration:** from 2006 to 2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Theoretical research on continuum computational models for neutral gas flow in a neutraliser within the JET neutral beam additional heating system

**Financing entity:** UK Atomic Energy Authority (UKAEA), and EPSRC (PhD Case Award)

**Amount granted:** GBP 69.259

**Duration:** from 2006 to 2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Uranium Alloys: A feasibility study (computational nanotechnology)

**Financing entity:** AWE Plc

**Amount granted:** GBP 5.500

**Duration:** from 2006 to 2006

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Blood flow modelling for the multiple Venturi devices focused on gas phase separation issues and geometry optimisation

**Financing entity:** River of Life Ltd

**Amount granted:** GBP 15.000

**Duration:** from 2005 to 2009

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Optimisation of the Vapotron Design (JET Fusion Facility) using High-Resolution Cavity Flow Models

**Financing entity:** UK Atomic Energy Authority (UKAEA), EPSRC (PhD Case Award)

**Amount granted:** GBP 69.000

**Duration:** from 2004 to 2007

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Qualitative and Quantitative Evaluation of the Perfusion of a Perforator Based Flap

**Financing entity:** Mid Essex NHS Trust

**Amount granted:** GBP 5.000

**Duration:** from 2004 to 2005

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Computational Investigation of Compressible Cavity Flows

**Financing entity:** BAE Systems

**Amount granted:** GBP 68.000

**Duration:** from 2001 to 2004

**Principal Investigator:** Dimitris Drikakis

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**Project title:** Study of Flow Stability in Gas-Meter Ducts

**Financing entity:** Eurometers Ltd

**Amount granted:** GBP 20.000

**Duration:** from 1998 to 1998

**Principal Investigator:** Dimitris Drikakis

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### **B.3 Participation in significant research and technology-transfer contracts with industry**

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**Contract title:** Investigation of initial conditions on instabilities

**Financing company/Administration:** AWE Plc

**Country:** UK

**Duration:** from 2009 to 2010

**Amount granted:** GBP 40.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** CFD Analysis and Design of a Family of Supersonic Diffusers

**Financing company/Administration:** Moog ISP Westcott Ltd

**Country:** UK

**Duration:** from 2015 to 2015

**Amount granted:** GBP 15.500

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** High-performance computing study of low-speed compressible methods

**Financing company/Administration:** AWE Plc

**Country:** UK

**Duration:** from 2008 to 2009

**Amount granted:** GBP 35.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** CFD Meshing for T45 frigate

**Financing company/Administration:** SEA (A Cohort PLC Company) & **Country:** UK  
DSTL (Defence Science and Technology Laboratory)

**Duration:** from 2008 to 2009

**Amount granted:** 13000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** Computational fluid dynamics study of Rayleigh-Taylor and Richtmyer-Meshkov Instabilities

**Financing company/Administration:** AWE Plc **Country:** UK

**Duration:** from 2008 to 2011

**Amount granted:** GBP 23.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** Advanced Computational Modelling of Richtmyer-Meshkov, Influence of initial condition

**Financing company/Administration:** AWE Plc **Country:** UK

**Duration:** from 2008 to 2008

**Amount granted:** GBP 23.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** CFD Study of Ship Airwake, T45 Frigate

**Financing company/Administration:** SEA (A Cohort PLC Company) & **Country:** UK  
DSTL (Defence Science and Technology Laboratory)

**Duration:** from 2009 to 2009

**Amount granted:** GBP 35.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** CFD Review for high-speed flows

**Financing company/Administration:** DSTL (Defence Science and **Country:** UK  
Technology Laboratory)

**Duration:** from 2007 to 2007

**Amount granted:** GBP 20.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** CFD Analysis of 4-bay tank and comparison with test results

**Financing company/Administration:** Eaton Aerospace **Country:** UK

**Duration:** from 2005 to 2007

**Amount granted:** GBP 66.700

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** Investigation of variants of the MILES approach on computing decaying compressible turbulent flow

**Financing company/Administration:** AWE Plc

**Country:** UK

**Duration:** from 2004 to 2007

**Amount granted:** GBP 70.000

**Principal Investigator:** Dimitris Drikakis

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**Contract title:** Numerical Simulation of Dynamic Friction through Coupling of Continuum Mechanics and Molecular Dynamics

**Financing company/Administration:** AWE Plc

**Country:** UK

**Duration:** from 2005 to 2008

**Amount granted:** GBP 20.500

**Principal Investigator:** Dimitris Drikakis

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