# Curriculum Vitae

# Professor Dimitris Drikakis, PhD, FRAeS, CEng, SMAIAA

## Contents

	Page
Professional and Academic Track record	2
Research impact	3
Leadership positions	5
Major Boards, Fellowships, industrial collaborations, professional societies membership, editorships, editorial boards, evaluator's appointments, PhD students	9
Teaching track record	13
Books & Journals publications	15
Conference publications	23
Annex I: Keynote presentations and Scientific, Advisory and Organising Committees	39

PROFESSIONAL EX	PERIENCE*	
2018 – to date  Other positions	<ul> <li>Vice President of Global Partnerships</li> <li>Executive Director, Research &amp; Innovation</li> <li>Professor, Medical Schools and Science &amp; Engineering (cross-appointment)</li> <li>President, Institute for Advanced Modelling and Simulation</li> <li>President, Defence and Security Research Institute</li> <li>Senior Researcher at University of Nicosia Research Foundation</li> </ul>	University of Nicosia, Cyprus
2015 - 2017 2017 - 2018 2015 - 2018 Other positions at 1 2017 - 2018 2016 - 2017	<ul> <li>Executive Dean of the Faculty of Engineering</li> <li>Executive Director, Global University         Partnerships (USA &amp; Far East)</li> <li>Professor of Engineering Science</li> <li>the University of Strathclyde:         <ul> <li>Executive Director, Strathclyde Space Institute</li> <li>Associate Principal</li> </ul> </li> </ul>	University of Strathclyde, UK
2003 - 2015 2005 - 2010, & 2013 - 2015 2013 - 2015 2012 - 2013	<ul> <li>Professor of Fluid Mechanics and Computational Science</li> <li>Head, Aerospace Sciences Dept</li> <li>Director of Research (School of Aerospace, Transport &amp; Manufacturing)</li> <li>Head, Department of Engineering Physics</li> </ul>	Cranfield University, UK
2011 - 2012	Founding Director, Computation-based Science and Technology Research Centre	Cyprus Institute <sup>1</sup> , Cyprus
2001 - 2003 1999 - 2001	<ul> <li>Professor of Fluid Mechanics</li> <li>Reader in Computational Fluid Dynamics</li> </ul>	Queen Mary, University of London, UK
1995 - 1999	Lecturer in Mechanical Engineering	University of Manchester <sup>2</sup> , UK
1993 - 1995	Team Leader, Computational Aerodynamics     Group	Friedrich–Alexander University of Erlangen-Nuremberg, Germany
1992 - 1993 1988 - 1991	<ul><li>Research Scientist</li><li>Research and Teaching Assistant</li></ul>	National Technical University of
		Athens, Greece
Înformation on Le	eadership and impact is provided on pages 3 to 8	

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<sup>&</sup>lt;sup>1</sup> In partnership with NCSA (National Centre for Supercomputing Applications) of the University of Illinois at Urbana-Champaign

<sup>&</sup>lt;sup>2</sup> University of Manchester Institute of Science and Technology (UMIST), which since 2003 is *The University of Manchester*.

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2008 – 2011 and 2011 – 2014	<b>William Penney Fellowship</b> by the UK's Atomic Establishment in recognition of my contribution to compressible turbulent flows. The award is offered to world-renowned subject matter experts in scientific or engineering fields.
2014	The NEF's <b>Innovator of the Year Award</b> by the UK's Institute of Innovation and Knowledge Exchange for a new generation carbon capture nanotechnology that uses carbon nanotubes for filtering out carbon dioxide and other gases.
2014	<b>Technical Achievement Award</b> at the International Conference on Mathematical Problems in Engineering, Aerospace and Sciences.

	EDUCATION	
1982 – 1987	Diploma in Mechanical Engineering (Meng)	National Technical University of Athens (NTUA), Greece
1988 – 1991	PhD in Computational Fluid Dynamics	NTUA <sup>3</sup>

HONORARY & INVITED POSITIONS			
2004 –	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	

 $<sup>^{3}\</sup> Scientific\ Collaboration\ with\ Deutsche\ Aerospace\ formerly\ Messerschmitt-B\"{o}lkow-Blohm.$ 

3

#### HIGHLIGHTS OF RESEARCH & SCHOLARSHIP IMPACT

I have been active in both fundamental and applied research for over 30 years in advanced computational modelling of fluids, acoustics, fluid/solid interfaces, nanotechnology, and emerging technologies, particularly in machine learning. My work has been key to resolving significant issues across various applied science and engineering problems. Evidence of research impact and scholarship includes:

- According to a team of researchers at Stanford University, Dimitris Drikakis has been included on 100,000 top scientists worldwide, the top 2% of scientists in their field. The updated 2020 list is based on a range of citation metrics that provides standardized data across those fields and subfields containing more than 8,000,000 scientists worldwide: loannidis JPA, Boyack KW, Baas J (2020) Updated science-wide author databases of standardized citation indicators. PLoS Biol 18(10): e3000918.
- According to Research.com has been ranked in the top 500 best scientists in Aerospace and Mechanical Engineering worldwide and the top scientist in Cyprus.
- The article by Dbouk, D. Drikakis, On coughing and airborne droplet transmission to humans *Phys. Fluids* 32, 053310 (2020) received one of the highest Altmetric Score of all American Institute of Physics publications. The above article has started changing policies and guidelines regarding social distancing in a few countries. About this article, there were stories from 282 news outlets worldwide. My Special Issue on the Flow and the Virus published in the Physics of Fluids journal exceeded 2 million downloads (May 2020 to date)
- I completed the supervision of **45 PhD students and** several MSc by Research students **and mentored 21 post-doctoral fellows**. All my former students now hold positions in academia and industries around the world.
- I published as a sole author, as well as jointly with my PhD students, post-doctoral researchers and industrial collaborators, 472 articles (journal, conference papers, and book chapters), as well as two books; h-index 50 (Scopus) & 55 (Google Scholar).
- I attracted significant funding as a Principal Investigator or a Co-investigator from various sources, including EPSRC, European Union, Industry and Government. A list of past and current industrial collaborations is provided on page 10.
- I have been an **Associate Editor in five international journals** and a member of the **editorial board of another 20 journals.**

#### **LEADERSHIP**

### 1. The University of Nicosia, Cyprus (October 2018 - )

## 1.1 Vice President of Global Partnerships

I have been responsible for

- Coordinating the University's relations and partnerships with major research funding agencies and other bodies – public and private – consistent with the mission and strategies of the University.
- Developing partnerships with industry and other academic institutions, which can also lead to joint research and degree programs and other initiatives.
- My role is to provide leadership in respect of global partnerships and international relations for the five university's schools: Science and Engineering, Medical School, Humanities, and the Law School.

#### 1.2 Executive Director of Research and Innovation

I have been responsible for

- Leading the University's Research and Innovation Office. My main goals have been to ensure the implementation of the University's research strategy and increase the probability of research funding success by coordinating the establishment of appropriate infrastructure. The above includes systems, processes and staff recruitment to support the University's Faculty in research.
- **Guiding academic staff** in respect of the preparation of research proposals. I also coordinate the Virtual Reality research activities of the University.
- **The University Rankings**: A significant part of executive director role concerns leading the University's efforts to enter and maintain a respectable position in the various University rankings, particularly
  - Times Higher Education,
  - o QS Emerging Europe and Central Asia (EECA), and
  - o Times Higher Education Impact Rankings.

Under my responsibility, the university entered the THES Rankings for the first time and moved to the band of 501-600 within 3 years.

## 2. University of Strathclyde (2015 - 2018)

## 2.1 Executive Dean (Engineering)

I was responsible for providing strategic leadership of the Faculty of Engineering that comprised eight academic departments and five industrial-scale research centres with a budget of £103 million; 850 staff (academic, administrative and research); and more than 5,500 students. I was responsible for ensuring that the Faculty maintains and develops its national and international profile, as well as for the efficient and effective management of the Faculty's resources in the provision of teaching, research, knowledge exchange and internationalisation activities. As an Executive Dean, I was a member of the University Executive and, as such, a member of the senior management team responsible for the development of the University Strategy.

I was responsible for the following academic departments:

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

## and University's 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

- Provide the Faculty with clear academic leadership and strategic direction.
- Continue the growth of the Faculty's commercial and internationalisation activities with several universities and companies overseas in Europe, Asia-Pacific region, and the USA.
- 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 activity in the Faculty.
- 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 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 retain it, and externally to attract it to the University.
- 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.

### 2.2 Associate Principal

I was responsible for 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.

Other roles in Strathclyde (2017 – 2018)

### 2.3 Executive Director of Global University Partnerships (the USA and the Far East)

As an Executive Director of Global University Partnerships, I was responsible for the strategic university partnerships with major universities in the USA and the Far East. The portfolio included Stanford University, New York University, Caltech, Hong Kong University of Science and Technology, MIT, and Nanyang Technological University (Singapore). My role was 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 and events.

## 2.4 Executive Director of the Strathclyde Space Institute

The Strathclyde Space Institute (SSI) was a pan-university institute, involving the Engineering, Science, Humanities and the Business Faculties, aiming to deploy practical solutions, over a wide range of Technology Readiness Levels. I was responsible for coordinating the development of space science and engineering at Strathclyde and support the growth of the space sector in Scotland and the UK. The overall aim was to expand on long term strategic areas of research that require a cross-disciplinary approach bridging the gaps between science, engineering and societal changes.

## 2.5 Co- Director of the Robotics and Autonomous Systems Institute

My role as a Co-Director of the newly established Robotics and Autonomous Systems Institute was to provide an overall structure and strategic leadership through alignment of the Strathclyde University activities in the above sector. Furthermore, I offered a framework for teaching and training activities; promoted more efficient use of resources; maximised our national and international visibility in Robotics and Autonomous Systems. I was also

responsible for the engagement with our industry partners and funding bodies and promoted internal collaborative research leading to increased volume and quality of research outputs.

## 3. Cranfield University (2003 - 2015)

## 3.1 Head of Academic Departments (Aerospace, Engineering Physics)

My role was to provide strategic leadership in all the academic activities of the Department and manage staff and financial resources. I aimed to foster excellence in teaching and research; establish new educational programmes of study and research facilities. I represented and promoted the Department and Cranfield University externally, as well as facilitated the development of collaboration strategies and partnerships with industry and academia worldwide. Furthermore, I contributed to the management and development of the School as a member of the School's Executive and the University's Senior Management Team.

## 3.2 Director of Research (School of Aerospace Transport & Manufacturing)

My role was to provide input to the Research Strategy of the University. I was responsible for the leadership and management of the School's (Aerospace, Transport & Manufacturing) Research and Innovation. The School had an annual turnover of £45 million and a research budget of £17 million. My tasks included the provision of recommendations for regulations for the academic and administrative processes for the management of all research students of the School; coordination of the School's external research peer review exercises (for REF); coordination of the School's research initiatives (EPSRC and other national funding initiatives). I was also responsible for the activities of the Doctoral Training Centres, and I enhanced the quality of the research supervision and assessment, as well as disseminating best practices for ensuring 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.

BOARDS, MAJOR COMMITTEES, DIRECTORSHIPS				
2021 2021	Awards Committee MDPI Cyprus Construction Awards	MDPI Publisher		
2013-2019	European Research Council	Deputy Chair (Engineering), Expert Panel		
2020 - 2019-2022	Member of the Council, University of Nicosia International Academic and Industrial Advisory Council of the Cyprus Marine and Maritime Institute	Member of the Council		
2019	European Development Program (Ministry of Citizen Protection, Greece)	Advisory Board		
2018 -	Institute for the Future, Cyprus	Board of Directors		
2016-2018	UK Oil & Gas Technology Centre	Academic Advisory Board		
2004-2018	Osborne Reynolds Awards	Scientific Committee Member		
2005-2015	AWE-Cranfield	Board of Management		
2013-2016	European Aeronautics Science Network	Board of Directors & Scientific Advisor		
2012-2017	European Commission	Expert Evaluator and Panel Member		
2018	European Science Foundation	College of Expert Reviewers		
2015	National Nuclear Security Administration, Department of Energy, USA	Expert Evaluator		
2010-2013	American Institute of Aeronautics and Astronautics	Fluid Dynamics Technical Committee		
2004-	Engineering and Physical Sciences Research Council	Peer-Review College		
2015-2018	Specialist Gas Separation Ltd	Director		

Membership on International Conference Committees is presented in Annex I.

## 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
Chartered Engineer Engineering Council, UK

Business Fellow London Technology Network (2000-2003)

## SELECTIVE (PAST & PRESENT) COLLABORATIONS WITH INDUSTRY AND MAJOR FUNDING BODIES<sup>4</sup>

- BAE Systems (UK)
- Atomic Weapons Establishment (UK)
- **EPSRC**
- Oil & Gas Institute, UK
- European Space Agency
- **GKN** AgustaWestland
- UK Atomic Energy Authority (UKAEA)
- **MBDA**
- Lockheed Martin
- Chemring Defence
- Airbus Defence and Space
- Jaguar Land Rover
- US Air Force (USAF)
- Commercial Aircraft Corporation of China
- German Aerospace Agency (DLR)
- Aircraft Research Association (UK)
- **NASA Ames**
- Tendeka (Swellfix Ltd)
- Los Alamos National Lab
- Altus-LSA Commercial and Manufacturing SA

- ITER (France)
- **Reaction Engines**
- SAFRAN Turbomeca
- Redring Xpelair Group
- MagnaParva Ltd
- **UK Ministry of Defence**
- European Union (H2020)
- Los Alamos National Lab
- **BHR Ltd**
- QualityPark AviationCenter GmbH
- **TEKEVER Group**
- **Xchanging Solutions**
- Eaton Aerospace
- Intracom Defence
- Research Promotion Foundation (Cyprus)
- Intrasfot International
- **Grant Thornton Ltd**
- Aditess Advanced Integrated Technology Solutions and Services Ltd

and several other companies and organisations through EU (H2020) projects

## **EVALUATOR, FUNDING BODIES**

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

10

<sup>&</sup>lt;sup>4</sup> Collaborations in my capacity as University Professor.

#### **EDITORSHIPS**

The Aeronautical Journal Computers and Fluids

Journal of Fluids Engineering

Journal of Computational and Theoretical Nanoscience Nanotechnology Reviews

Encyclopedia of Aerospace

Engineering

Associate Editor Associate Editor Associate Editor (2004-

2014) Associate Editor

Associate Editor (2012-

2013)

Associate Editor

Royal Aeronautical Society

**FIsevier** 

American Society for Mechanical Engineers American Scientific

**Publishers** De Gruyter

Wiley

#### **EDITORIAL BOARDS**

- Physics of Fluids (Advisory Board), American Institute of Physics.
- Nature Scientific Reports
- International Journal for Numerical Methods in Fluids
- Energies
- Computation
- Journal of Nanotechnology
- Research Letters in Nanotechnology
- Journal of Nanotechnology: Nanomedicine & Nanobiotechnology
- International Journal of Applied Engineering Research
- Mathematics Applied in Science and Technology
- Research in Applied Mathematics
- Journal of Astrophysics & Aerospace Technology
- International Journal of Mechatronics and Automotive Research (IJMAR)
- Simulation and Additive Manufacturing,
- Journal of Nuclear Medicine & Radiation Therapy
- American Research Journal of Nanotechnology,
- Advance in Environmental Waste Management & Recycling,
- Thermal Science and Engineering
- Inventions Section 'Inventions and innovation in Energy and Thermal/Fluidic Science', International Journal of Aeronautics
- Journal Sci.
- FELIP International Journal on Engineering Analysis

NATIONAL	AND INTERNATIONAL THINK TANKS/ASSOCIATIONS/	CONSORTIA
2009 - 2013	EPSRC - 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)			
M. Guillemette (active) D. Yiannakides (active) R. Kamenicky (2022) K. Singh (2022) M.Papanikolaou (2017) C. Barmparousis (2015) M. Frank (2015) J. Appleyard (2014) M.Probyn (2014) I. Zissimos (2014) M.Kio (2014) K. Karantonis (2013) L. Konozsy (2013) D.Mantzalis (2013)	A. Mihaiescu (2013) T. Oggian (2013) A. Antoniadis (2013) A.Baranda Inok (2012) B. Obadia (2012) Z. Rana (2012) D. Sourmaidou (2012) P. Barton (2011) M. Benke (2011) M. Lai (2011) A. Milonas (2011) J. Milnes (2011)	E. Quaranta (2011) C. Papachristou (2011) Y. Shimada (2011) C. Vamvakoulas (2011) S. Tissera (2011) N. Asproulis (2010) Z. Malick (2010) N. Epiphaniou (2010) M. Porton (2010) P. Tsoutsanis (2010) I. Kokkinakis (2009) J. Lechuga (2009)	(2009) M. Hahn (2008) M. Kalweit (2008)

#### **TEACHING & LEARNING**

- I am an experienced lecturer (35 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, University of London, Cranfield University, University of Erlangen-Nuremberg, Germany, and the University of Nicosia, Cyprus.
- Due to the multi-disciplinary character of my 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 classes, I have prepared teaching material 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 founded 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 keen industrial interest, which led to sponsored studentships and employment opportunities for graduates.

#### University of Nicosia

- Spring semester: Fluid Mechanics (undergraduate)
- Medical Physics (undergraduate)

## University of Strathclyde

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

#### Cranfield University

- Advanced and Classical Turbulence Modelling
- Fluid Mechanics and Heat Transfer
- MSc Aerospace Group projects
- CFD for Aerospace **Applications**
- Micro/Nano Flows
- CFD for Automotive Flows

## Other related duties:

- 1) Founded the following new MSc Programmes in
  - Computational Fluid Dynamics (also acted as a Director and co-director)
  - Autonomous Vehicles Dynamics and Control
- 2) Director of Cranfield Aerospace Doctoral Training Centre (2008-2010).
- Computational Fluid Dynamics
   Advanced Aerodynamics

Queen Mary, University of London	<ul> <li>Stability and Control of Aircraft</li> </ul>	
University of	<ul> <li>Computational Fluid Dynamics</li> </ul>	<ul><li>Thermodynamics</li></ul>
Manchester (UMIST)	Fluid Mechanics	<ul><li>Engineering Design</li></ul>
	Heat Transfer	gg _ co.g
	riodi ridilolol	
University of Erlangen-	<ul> <li>Computational Fluid Dynamics</li> </ul>	■ Fluid Mechanics
Nuremberg	Heat Transfer	<ul> <li>Parallel Computing</li> </ul>
Short Courses	<ul> <li>Introduction to Godunov Methods</li> </ul>	, Oxford.
	<ul> <li>Heat Transfer and Fluid Flow Stud</li> </ul>	•
	Delft Univ.	
	<ul> <li>7<sup>th</sup> and 8<sup>th</sup> Biennial Colloquia on C</li> </ul>	CFD, UMIST
	<ul> <li>Turbulence: Principles, Models, a</li> </ul>	nd Numerical Methods,
	University of Erlangen-Nurember	g
	<ul> <li>NUMET'94 Numerical methods for</li> </ul>	r the Computation of Flows and
	Heat Transfer Problems, Univers	ity of Erlangen-Nuremberg.
	<ul> <li>Efficient Flow Simulations through</li> </ul>	New Numerical Methods and
	Parallel Computing, University of	Erlangen-Nuremberg
(Selective) Industrial	<ul><li>Jaguar Land Rover: Fluid Mechar</li></ul>	nics and Computational Fluid
short courses	Dynamics	
	<ul> <li>COMAC (China): Aerodynamics,</li> </ul>	
	<ul> <li>MWH Global Inc: CFD for Industry</li> </ul>	
	<ul> <li>Large Eddy Simulation Short Cou</li> </ul>	
	Grinstein (Los Alamos National L	ab) and N. Georgiadis (NASA
	Glenn)	
External Examiner	<ul> <li>External Examiner of Master of Se</li> </ul>	cience Programmes at Imperial
	College (2006-2010), University of	of Southampton (2006-2010),
	University of Manchester (2014 -	2018), Brunel University (2012
	- 2016) and PhD examiner in sev	veral universities in the UK
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### Research publications

(Scopus Author ID: 56273846200)

- *h-index*: 55 (Google Scholar), 50 (Scopus)
- *i10-index*: 167 (Google scholar)

#### **Books**

- 1. D. Drikakis and W. Rider<sup>5</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>6</sup> (Eds) *Turbulent Flow Computation*, Kluwer Academic Publishers, 369 pages, 2002 (ISBN: 1-4020-0523-7).

### Journal publications (Peer-reviewed)

- Christakis N, Evangelou I, Drikakis D, Kossioris G. A Computational Methodology for Assessing Wind Potential. *Energies*. 2024; 17(6):1385. https://doi.org/10.3390/en17061385
- 2. Sofos, F., Drikakis, D., Kokkinakis, I.W., and Spottswood S.M. A deep learning superresolution model for turbulent image upscaling and its application to shock wave boundary layer interaction, Physics of Fluids 36, 025117 (2024)
- 3. Dimitris Drikakis, Ioannis William Kokkinakis, Panagiotis Tirchas, S. Michael Spottswood, Physical consistency and invariance in machine learning of turbulent signals, Physics of Fluids 36, 016130 (2024).
- 4. Dimitris Drikakis, Ioannis William Kokkinakis, Daryl Fung, S. Michael Spottswood, Generalizability of transformer-based deep learning for multidimensional turbulent flow data, Physics of Fluids, 36, 026102 (2024).
- 5. Nicholas Christakis, Dimitris Drikakis, Konstantinos Ritos, Ioannis W. Kokkinakis, Unsupervised machine learning of virus dispersion indoors, Physics of Fluids 36, 013320 (2024).
- 6. Konstantinos Ritos, Dimitris Drikakis, Ioannis William Kokkinakis, The effects of ventilation conditions on mitigating airborne virus transmission, Physics of Fluids 36, 013322 (2024).
- 7. Poulinakis, K.; Drikakis, D.; Kokkinakis, I.W.; Spottswood, S.M.; Dbouk, T. LSTM Reconstruction of Turbulent Pressure Fluctuation Signals. Computation 2024, 12, 4. https://doi.org/10.3390/computation12010004
- 8. Sofos, F., Drikakis, D., Kokkinakis, I.W., and Spottswood S.M.Convolutional neural networks for compressible turbulent flow reconstruction", *Physics of Fluids*, 35, 116120 (2023).
- 9. Ritos, K., Drikakis, D., & Kokkinakis, I. W. (2023). Virus spreading in cruiser cabin. *Physics of Fluids* 35, 103329 (2023).
- 10. Kokkinakis, I. W., Drikakis, D., Spottswood, S. M., Brouwer, K. R., & Riley, Z. B. (2023). High-speed shock–boundary-layer interaction over deformed surfaces. *Physics of Fluids*, *35*(10).
- 11. Drikakis, D.; Sofos, F. Can Artificial Intelligence Accelerate Fluid Mechanics Research? *Fluids* **2023**, *8*, 212. https://doi.org/10.3390/fluids8070212
- 12. Christakis, N.; Drikakis, D. Reducing Uncertainty and Increasing Confidence in Unsupervised Learning. *Mathematics* **2023**, *11*, 3063. <a href="https://doi.org/10.3390/math11143063">https://doi.org/10.3390/math11143063</a>
- 13. Christakis, N.; Drikakis, D. Unsupervised Learning of Particles Dispersion. *Mathematics* **2023**, *11*, 3637. https://doi.org/10.3390/math11173637

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<sup>&</sup>lt;sup>5</sup>Los Alamos National Laboratory (now at Sandia Labs), USA.

<sup>&</sup>lt;sup>6</sup>University of Twente, The Netherlands.

- 14. Ali, Samer, Talib Dbouk, Mahmoud Khaled, Jalal Faraj, and Dimitris Drikakis. "Morphing optimization of flow and heat transfer in concentric tube heat exchangers." *Physics of Fluids* 35, no. 9 (2023).
- 15. T. Dbouk, F. Roger, D. Drikakis, S. Ali, H. Menu, E. Wiel, The impact of endotracheal intubation on oxygen delivery, trachea pressure and wall deformation, *Computers in Biology and Medicine*, Volume 164, 2023, 107325, https://doi.org/10.1016/j.compbiomed.2023.107325.
- 16. Konstantinos Poulinakis, Dimitris Drikakis, Ioannis William Kokkinakis, S. Michael Spottswood; Deep learning reconstruction of pressure fluctuations in supersonic shockboundary layer interaction. Physics of Fluids 1 July 2023; 35 (7): 076117.
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## Annex I

KEYN	OTE AND INVITED PRESEN	TATIONS	
2023	Keynote	Hellenic Air Force Conference	Greece
2022	Keynote	Cyprus Air Force Conference	Cyprus
2020	Keynote	Aerodynamics 2020	Virtual
2020	Keynote	V-Applied2020, International Webinar on Applied Science	Virtual
2019	Invited	ETH Zurich	Switzerland
2019	Keynote	International Conference on	Dubai
2013	Reynote	Aviation and Space Technology	Dubai
2018	Invited	CCPS 2018, Collaborative	Barcelona, Spain
2010	mvited		barceiona, Spain
		Conference on Fluid Dynamics,	
0040	W 1 -	September 10-14, 2018	Landan IIIZ
2018	Keynote	21st International Conference on	London, UK
		Advanced Nanoscience and	
0040	W 1 -	Nanotechnology, June 21-23, 2018	Landan IIIZ
2018	Keynote	16 <sup>th</sup> International Conference on	London, UK
		Emerging Materials and	
0040	Varmata	Nanotechnology, March 23 <sup>rd</sup> .	O a made midd on a LUIZ
2018	Keynote	International Conference on	Cambridge, UK
		Computational Materials Science	
		and Thermodynamic Systems	
2017	Lecture in Fluid Mechanics	(CMST 2018), March 22 <sup>nd</sup> .	Ovford LIK
2017	Lecture in Fluid Mechanics	UK Atomic Engergy Auhority, 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	Plenary, First World	ILEC Conference Centre	London, UK
2017	Congress on Condition	illo domerence dentre	London, Ort
	Monitoring		
2017	Lecture in Fluid Mechanics	Universitat Politècnica de	Barcelona, Spain
2011	Educate in Fraid Meditariles	Catalunya (UPC)	Baroolona, opani
2017	Lecture in Fluid Mechanics	Nanyang Technological University	Singapore
2016	Keynote International	University of Trento	Italy
	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.		
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	Variate Marketer as	Tashaisaha Haiye itiit	Munich Commence
2016	Keynote, Workshop on	Technische Universität München	Munich, Germany
2016	"Hybrid Simulation Methods in Fluid Dynamics: Models	WUNCHEN	
	in Fluid Dynamics: Models, Software, and Applications"		
	Software, and Applications		

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	Keynote, 11th International Conference of Condition Monitoring and Machinery Failure Prevention Technologies (Selected as the Best Conference Paper)	British Institute of Non-Destructive Testing and US Society for Machinery Failure Prevention Technology	Manchester, UK
2014	Keynote, 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 Division	CA, USA
2014	3 <sup>rd</sup> International Workshop on Computational	M.V. Keldysh Institute of Applied Mathematics	Svetlogorsk,Russia
	Experiments in Aeroacoustics		
2012	Experiments in Aeroacoustics Keynote, Flying Test Beds for Novel Aircraft Configurations for Future Air Transport	European Commission, Aeronautics	Brussels, Belgium
2012	Aeroacoustics <b>Keynote</b> , Flying Test Beds for Novel Aircraft Configurations for Future	•	Brussels, Belgium Bavaria, Germany
	Aeroacoustics Keynote, Flying Test Beds for Novel Aircraft Configurations for Future Air Transport Annual Keynote Lecture, Flying Concepts and Computational Science in Support of their	Aeronautics	
2013	Aeroacoustics Keynote, Flying Test Beds for Novel Aircraft Configurations for Future Air Transport Annual Keynote Lecture, Flying Concepts and Computational Science in Support of their Development 9th UK - Japan Seminar on Multi-Phase Flow Keynote, Mosaic3DX	Aeronautics  Airbus Group  UK-Japan Collaboration  Microsoft research and Univ. of	Bavaria, Germany
2013	Aeroacoustics Keynote, Flying Test Beds for Novel Aircraft Configurations for Future Air Transport Annual Keynote Lecture, Flying Concepts and Computational Science in Support of their Development 9th UK - Japan Seminar on Multi-Phase Flow	Aeronautics  Airbus Group  UK-Japan Collaboration	Bavaria, Germany  London, 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 Advanced Computing and Simulation	University of Cambridge	Cambridge, UK
2007 2007	Invited Seminar  Keynote, World  Engineering Congress	University of Southampton	Southampton, UK 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 2003	ERCOFTAC Lecture Conference on Multiphase Fluid Flows and Multi- Dimensional Hyperbolic Problems	ETH Isaac Newton Institute for Mathematical Sciences, Cambridge University	Zurich, Switzerland Cambridge, UK
2001 2000	Invited Seminar ECCOMAS Conference, Forum on "Low Mach Number Flows"	University of Greenwich ECCOMAS	London, UK 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	Keynote, 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, Ad	dvisory and Organising Committees	
2024	8th International Conference on Computational and Mathematical Biomedical Engineering (CMBE24)	George Mason University, Arlington, Virginia, United States
2021	12th International Conference on Mechanical and Aerospace Engineering (ICMAE)	Athens, Greece
2021	International Conference on Smart Cities and Smart Grid (CSCSG 2021)	Frankfurt, Germany
2020	14th World Congress in Computational Mechanics and ECCOMAS Congress 2020	Paris, France
2019	International Scientific Committee, ECCOMAS 5th Young Investigators Conference (1-6 Sept, 2019)	Kraków, Poland
2018	12th International Conference on Challenges in Industrial Engineering and Operations Management Conference, 11-12 September.	Ankara, Turkey
2018	International Advisory Committee of the International Condition Monitoring Conference	UK
2018	3rd International Conference on Design and production Engineering, December 03-04, 2018	Valencia, Spain
2018	ICMAE 2018 - 9th International Conference on Mechanical and Aerospace Engineering	Budapest, Hungary
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, Pumps and Pipes (medical science meets oil industry meets space science" – called)	Aberdeen, Scotland, UK
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	12th Edition of International Conference on Nanopharmaceutics and Advanced Drug Delivery.	Dublin, Ireland

2018	2nd International Conference on Medical and Health	Hong Kong
	Informatics (ICMHI 2018)	
2018	16 <sup>th</sup> International Conference on Emerging Materials and Nanotechnology	London, UK
2018	4th International Conference on Physics	Berlin, Germany
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
2018	3 <sup>rd</sup> International Conference on Fluid Dynamics & Aerodynamics, 25-26 October	Berlin, Germany
2017	Chair, 1st International Aerospace Symposium on Acoustic Fatigue	Glasgow, UK
2017	Chair 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	Moscow, Russia
2001, 2006, 2010	Compressible Turbulent Mixing 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