

## Candidates for Americas

**Arezoo Ardekani** is a Professor of Mechanical Engineering at Purdue University. Honored with the Presidential Early Career Award for Scientists and Engineers (PECASE), Arezoo has also received an NSF CAREER Award, the Arthur B. Metzner Early Career Award from the Society of Rheology, the Society of Engineering Science (SES) Young Investigator Medal, the Sigma Xi Research Award, and is named a Purdue University Faculty Scholar. A Fellow of the American Physical Society (APS) and American Society of Mechanical Engineers, Arezoo studies suspensions of drops, particles, swimmers, and complex fluids. Arezoo has published 150 articles in leading journals and presented 75 invited/keynote talks. Arezoo is an Associate Editor of ASME Applied Mechanics Review and an Editorial Advisory Board Member of several journals, including the International Journal of Multiphase Flow. She was a co-chair of the 2022 APS-DFD meeting held in Indianapolis.



**Emilie Dressaire** is an Assistant Professor of Mechanical Engineering at the University of California at Santa Barbara. She received a B.S. in Engineering from ESPCI, France, an M.S. in Biophysics from Paris Sud University and a Ph.D. in Mechanical Engineering from Harvard University in 2009. She was a post-doctoral fellow at McGill University and an Assistant Professor at New York University before joining UCSB. Emilie's research interests in experimental fluid mechanics include complex fluid flows. Her current work focuses on fluid transport in gels to enhance 3D cell culture environment through embedded printing. Her work was featured in the Emerging Investigators issue in Soft Matter (2017). She was elected member-at-large of the American Physical Society Division of Fluid Dynamics in 2018.



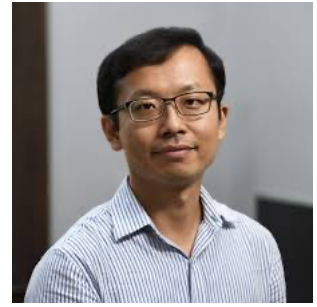
**Rodney O. Fox** is *Anson Marston Distinguished Professor* at *Iowa State University, USA*. He is a fellow of the American Physical Society and the AIChE, and Associate Editor for Transport Phenomena and Fluid Mechanics of AIChE Journal. He also serves the Executive Director of Iowa State's CoMFRE Multiphase Flow Research group. In 2012, he received the European Union Marie-Curie Senior Scholar award at the Ecole Centrale de Paris, France. In 2016, he was awarded an Attractively Chair at the University of Toulouse, France. In 2017 he was awarded the International Francqui Chair at the University of Ghent, Belgium. In 2022, he received the Fulbright-Tocqueville Distinguished Chair award and the Jean D'Alembert Senior Professor Chair award at the University of Paris-Saclay, France. His research interests focus on kinetic-based model development and numerical simulation of polydisperse multiphase flows.



**Erick Franklin** is Associate Professor at the University of Campinas (UNICAMP), Brazil. He organized the ENCIT2018, was Scientific Editor of the JEM2015 and ICMF2019, and was Invited Keynote Lecturer for a Thematic Session in ICTAM2020+1. He is Associate Editor of the J. Braz. Soc. Mech. Sci. Eng. (Springer) and has served as Guest Editor for Special Issues of Appl. Therm. Eng., and Flow Turbul. Combust. His research interests are related to granular matter interacting with fluids, more specifically the morphodynamics of sand dunes, crystallization and jamming in granular matter, and instabilities in fluidized beds.



**Rui Ni** is an Associate Professor in the Department of Mechanical Engineering at Johns Hopkins University, United States. He was appointed as the DOE ORISE professor in 2019. Prior to joining JHU, he was the endowed Kenneth K. Kuo Early Career Professor at Penn State University. He is current serving as an associate editor for International Journal of Multiphase Flow. He received an NSF CAREER award in fluid dynamics, ACS-PRF New Investigator Award, and NASA Early Stage Investigation award. His primary research focus is the development of advanced experimental methods for understanding multiphase flows in many applications, such as energy systems, emulsion, particle ingestion in gas turbines, landings on extraterrestrial bodies, and dust mitigation for future space exploration.



## Candidates for Asia

**Kosuke Hayashi** is an associate professor at the Graduate School of Engineering, Kobe University, Japan, since 2012. He received Doctor of Engineering from Kobe University in 2007. He was formerly an assistant professor (2007-2008), then lecturer (2008-2009) at the Kobe City College of Technology, and assistant professor at Kobe University (2009-2012). His research interests include experiments and numerical simulations of bubbles and drops, and effects of surface-active agents on the bubble and drop dynamics, especially the drag and lift forces. He has published 120 peer-reviewed journal papers and devoted two chapters in Encyclopedia of Two-Phase Heat Transfer and Flow III, Macro and Micro Flow Boiling and Numerical Modeling Fundamentals (2018).



**Hyun Sun Park**, research professor, Seoul National University: I received my Ph.D. in 1995 at the University of Wisconsin-Madison, in the USA in the area of nuclear safety especially experimental investigation on the steam explosion in a large scale. After the degree, I moved to JAERI, currently, JAEA in Japan as a JAERI research fellow and had worked on the steam explosion phenomena in various contact modes using the ALPHA facility for three years. After JAERI I moved to the KTH Royal Institute of Technology in Sweden working on the mechanistic steam explosion phenomena in a single drop with synchronized simultaneous visualization techniques using X-ray and photography. After the Fukushima accident, I moved back to Korea and worked at the Division of Advanced Nuclear Engineering (DANE) in POSTECH focusing on severe accident research specifically studying in-vessel retention and corium pool convection and ex-vessel coolability, steam explosion, MCCI, mitigation measures as well as developing various analytical tools and methodology for risk-significant severe accidents assessment. In parallel, I worked on boiling and condensation in various micro/nano-structured surfaces with chemical characteristics of hydrophobicity and hydrophilicity, supercritical CO<sub>2</sub> power cycles and heat exchanger design, and thermally enhanced accident tolerant fuel cladding, etc. At present I work at the Nuclear Research Institute of Future Technology and Policy under the Department of Nuclear Engineering in Seoul National University, continuing research and education on nuclear safety and fundamental multiphase heat transfer and fluid flow. Especially, I am currently focusing on developing a computational platform for severe accident analysis for nuclear power plants as well as comprehensive boiling models to evaluate boiling performance on the nuclear fuel cladding with various operation periods turing into high-burnup cladding. Over 100 journal papers on nuclear safety, fundamental multiphase heat transfer and fluid flow and energy technologies including severe accidents in nuclear power plants, boiling and condensation on engineered surfaces and porous media, Brayton cycles with Supercritical SCO<sub>2</sub> and fuel cell.



**Kazuyasu Sugiyama** is a Professor at Graduate School of Engineering Science, Osaka University, Japan. He received a doctor degree (Engineering) in 2000 from School of Engineering, the University of Tokyo, Japan. He was a Researcher at National Maritime Research Institute, Japan (2001-2005), a Postdoc in Physics of Fluids group, University of Twente, the Netherlands (2005-2007), a Research Associate Professor at School of Engineering, the University of Tokyo (2008-2012), and a Unit Leader in Advanced Center for Computing and Communication, RIKEN, Japan (2012-2014). Since 2014, he has been working at Osaka University. He served as a plenary/keynote speaker at ICMF 2016, Int. Symp. of Cavitation and Multiphase Flow 2014 and so on, and a member of organizing committee of ICMF 2023 (as Scientific Secretary), 29th IAHR Symp and so on. His expertise includes fundamental motions of a bubble/particle, multiscale phenomena in bubbly flows, development of numerical methods for fluid-structure/membrane interaction, biomedical applications, and high-performance computing of moving boundary problems. He has published more than 90 articles in refereed journals and more than 160 articles in international conferences.



**Bing Wang** graduated from Department of Engineering Mechanics Tsinghua University in 2000 and received the doctorate degree there in 2005. Before joining School of Aerospace Engineering Tsinghua University as a lecture, he was an Av Humboldt Visiting Scholar at the TUM from 2006 to 2008. He is now a full-tenured professor of aerospace engineering and fluid mechanics, serving as the vice-dean of the school. His research interests include multiphase and reaction flow modeling, detonation propulsion, and artificial intelligence in aerospace science. He leads the Spray Combustion and Propulsion Lab at Tsinghua University and is currently serving on editorial boards of several top academic journals including Associate Editor of *Aerospace Science and Technology*, and *Chinese Journal of Aeronautics*, and so on. In 2022, he initiated a dedicated journal *Detonation and Propulsion*. As the conference chair, he organized the IWDP in Xi'an China, and the ICTFDC in New Zealand and Singapore. He has published more than 150 papers in refereed archival journals and more than 70 conference papers and is a co-inventor of 17 Chinese and international patents. He currently holds several national prizes on science and technology progress, and four golden awards at world-class international invention exhibitions. He is an Associate Fellow of the AIAA and the TUM Ambassador.



**Zhaosheng Yu** is currently a professor in the department of Mechanics at Zhejiang University. He received the B.S. and M.S. degrees from Zhejiang University, China, in 1996 and 1999, respectively, and the Ph.D. degree from the University of Sydney, Australia, in 2004 (under supervision of Professors Nhan Phan-Thien and Roger Tanner). He was a Postdoctoral research fellow at the University of Twente, Netherlands (working with Professor John F. Brady), and then in IFP, France, from 2003 to 2006. He has been working at Zhejiang University since 2006, and was promoted to associate and full professor in 2006 and 2012, respectively. He currently serves as head of the Fluid Engineering Institute at Zhejiang University and head of the multiphase flow professional group in Chinese Society of Theoretical and Applied Mechanics. He developed fictitious domain methods for the direct numerical simulations of particle-laden flows for various situations including non-Newtonian fluids, heat transfer, Dielectrophoresis, and elastic body. His current research interests include the mechanisms and modeling of the multiphase flows based on fully-resolved direct numerical simulations. He is in the editorial boards of *Applied Sciences* and *Journal of Hydrodynamics*. He has published more than 90 peer-reviewed papers with over 2800 Google scholar citations.





## Candidates for Europe

**Rocío Bolaños-Jiménez** is an Associate Professor of Fluid Mechanics at the University of Jaén (Spain). She graduated in Chemical Engineering (University of Granada, Spain) in 2004 and got a Ph.D. (Universidad de Jaén) in 2011, obtaining the Extraordinary Ph.D. Award. Her research focuses on the dynamics of the generation and movement of bubbles and drops, mainly through experimental techniques. She collaborates with different researchers from international centers (University of Twente or Institut de Mécanique des Fluides de Toulouse). Her work has been published in articles in JCR journals and it has been continuously funded since 2006 through projects obtained in public calls, being the principal investigator of several of them. She is the co-author of 2 patents and has led several transfer contracts with multinational companies. She has been the director of the Research Office at the University of Jaén and currently she works for the Spanish Research Agency as a scientific collaborator.



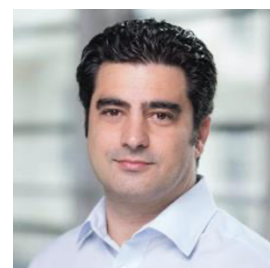
**Jochen Fröhlich** is a Professor of Fluid Mechanics at Technische Universität Dresden, Germany. He organizes a summer school on turbulence simulation since 2006, co-organized the Workshop on Direct and Large Eddy simulation 2007-2017, minisymposia at several conferences, and the annual meeting of GAMM 2023. He was a board member of the Archive of Applied Mechanics 2008-2019 and is a member of the Editorial Advisory Board of IJMF since 2017. He received the Harold Schoemaker Award of IAHR 2017 and prizes for teaching and PhD supervision. His areas of expertise include numerical methods for particulate and bubbly flows, turbulence simulation, high performance computing and high order methods. His results are published in 233 refereed journal papers and numerous papers in international conference proceedings. He is a passionate teacher and is interested in art.



**Christophe Josserand** is CNRS research director at LadHyX (Laboratoire d'Hydrodynamique de l'X) and professor of fluid mechanics at Ecole Polytechnique, Institut Polytechnique de Paris, France. His areas of expertise include bubbles and droplets dynamics, phase changes in multiphase flows and wave turbulence. He has been an editor of Physica D and is the author of more than 100 journal papers.



**Christos N. Markides** is Professor of Clean Energy Technologies and Head of the Clean Energy Processes Laboratory at Imperial College London. He is also Editor-in-Chief of Applied Thermal Engineering, a member of the UK National Heat Transfer Committee, the Global Energy Association, the International Energy Storage Alliance, and a Fellow of Clean Growth Leadership Network. He has an interest in high-performance devices, technologies and systems for thermal-energy recovery, utilisation, conversion or storage, with a particular focus on the development and application of advanced experimental techniques for detailed flow, heat/mass transfer measurements. He has published >300 journal and >350 conference papers on these topics. He won IMechE's 'Donald J. Groen' outstanding paper prize in 2016, IChemE's 'Global Award for Best Research Project' in 2018, the Engineers without Borders 'Chill Challenge' in 2020, and received Imperial College President's Awards for Teaching in 2016 and Research Excellence in 2017.



**Aurore Naso** is a Senior Researcher in CNRS, Ecole Centrale de Lyon, University of Lyon, France. She has served from 2016 to 2021 as elected member of the French National Comity of Scientific Research (CoNRS), Fluid and Reactive Media Division. She has been a member of the organizing committees of nine international events (including the European Turbulence Conference 14, in 2013, and a thematic school, as chair, in 2012). Her areas of expertise cover the numerical simulation and modelling of two-phase flows and turbulence, including more specifically the transport of bubbles and particles in turbulent flows. This called collaborations and/or visits in the USA, the Netherlands, Ireland, and Sweden. She has given seven invited presentations, including two lectures, in international events.



**Devaraj van der Meer** is a full professor in the Physics of Fluids group at the University of Twente in the Netherlands. He has been working on a variety of fluid dynamics and soft matter topics, ranging from the impact of droplets and solids onto granular substrates and liquids, sloshing and other free surface phenomena, to bubble growth on wetted substrates. In his work, he uses a combination of experiment, numerics, and theory, a strategy that aims at a thorough understanding of the underlying physics. He is Fellow of the American Physical Society (DSOFT) and was elected Chair of the Gordon Research Conference on granular matter. He has served the community as Member of the Editorial Board of Physical Review E, as Member of the Dutch Physics Council, as Chair of the Applied Physics Department in Twente, and as member and chair of various scientific panels and committees.

