The 75th Annual Meeting of the American Physical Society, Division of Fluid Dynamics (DFD) will take place at the Indiana Convention Center in Indianapolis, Indiana, from Sunday, November 20 through Tuesday, November 22, 2022. A virtual component is also available. The meeting is hosted by Purdue University, the University of Indianapolis, IUPUI, and the University of Notre Dame.

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New this Year

- The abstract submission DEADLINE is earlier than it has been in previous years. Your submission must be received by 5:00 PM (EST) on July 25, 2022.

- A Career Fair and accompanying workshops are available to all in-person attendees during the meeting. The Fair begins with two career-based workshops on Saturday late afternoon/evening. Please refer to the meeting website for more information and updates: https://www.apsdfd2022.org/.

- This year’s meeting will have an overall theme of Fluid Dynamics & the World’s Grand Challenges to celebrate our 75th Anniversary of the DFD. The local organizing committee seeks to highlight the impact of fluid dynamics research on global challenges, such as education and inequality, water security, climate change, renewable energy, health, and our understanding of the universe.

Important: Upload Your Content

All presenters—even those attending the meeting in person—are expected to upload their presentations to the conference platform so that all registered attendees can view them.

- Oral presenters: upload a 10-minute video
- Poster presenters: upload a pdf of their poster and a two-minute video

Fluid Dynamics and the World’s Grand Challenges
Welcome to the Spring/Summer 2022 Division of Fluid Dynamics Newsletter. After two dark years in which the Covid-19 pandemic governed our daily life, the horizon has brightened for many of us and in-person meetings have become possible again. One of the first large scale meetings of our community was the Annual Meeting of our Division of Fluid Dynamics in Phoenix in November 2021. This Newsletter presents highlights of that meeting. Some of them are directly connected to the pandemic.

Relying on its expertise, our community majorly contributed to answer societal questions in the context of the pandemic, namely aerosol spreading, respiratory droplet evaporation, ventilation strategies, air filtering, face masks, and other mitigation strategies. Expertise on fundamental fluid dynamics problems built up over decades enabled this rapid response to the sudden challenge our society faced with this airborne disease. Conversely, the pandemic offered outstanding new scientific questions to our community, which it proactively took up and has started to answer, in close collaboration with other disciplines. Equipped with the knowledge of the airborne transmission route of the corona virus and of mitigation strategies, our community was also able to avoid any major spreading of Covid-19 during the Phoenix meeting in November (I personally do not know of any case), and I would like to especially thank our past Division Chair John Dabiri (also Chair of the program committee), the Chairs of the Phoenix organization committee, Marcus Herrmann and Konrad Rykaczewski, and their team for their wise leadership, for coping with all the difficulties the pandemic caused to such a large-scale meeting, and for making the event a great success.

Mankind, however, faces many more grand challenges with fluid dynamics at their core or where fluid dynamics can and must majorly contribute. Next to the health sector, this also holds for the energy transition, with various subfields like wind and thermosolar energy, electrolysis and hydrogen production, catalysis and batteries, and handling liquefied natural gases. Another key challenge is climate change research, with questions connected to cloud formation, global warming, urban microclimate, CO2-sequestration, glacier melting, oceanography, and the spreading of air- or water-based pollutants. And fluid dynamics contributes in a major way to the high-tech industry, with challenges, e.g., in digital inkjet printing, additive manufacturing, diagnostics, and wafer production and cleaning.

These societal challenges also require fundamental research in fluid dynamics and conversely offer great inspiration for our field. We will surely see nice and exciting results on these and many other fluid dynamics problems at the upcoming 75th Annual Meeting of the Division of Fluid Dynamics in Indianapolis, to which I invite you to come experience and contribute to the vibrant activity of our field.

From my point of view, we presently live in the golden age of fluid dynamics: The reasons are: (i) Moore’s law continues to be followed for computational power, so that simulations which we did not dare to dream of even ten years ago are now possible, and (ii) a similar revolution (for the same reason) in digital high-speed imaging enables us to now routinely resolve to below the millisecond time scale, revealing new physics, which up to now was inaccessible, and producing a huge amount of data on the flow. Moreover, other advanced equipment like confocal microscopy, digital holographic microscopy or other holographic techniques are coming to be used more and more in fluid dynamics. Considering all of these advances together, the gap between what can be measured and what can be simulated \textit{ab initio} is narrowing more quickly than we had anticipated at the end of the last century.

This Newsletter provides preliminary information about the 75th anniversary meeting of our Division in Indianapolis. We will be updating our website as more information becomes available, so please visit https://apsdfd2022.org.

Detlef Lohse 2022-2023 Chair
APS-Division of Fluid Dynamics

Support of Disrupted Science in Ukraine

At the APS Board & Council Meeting it was decided to financially support the disrupted Science in the Ukraine. As a unit, DFD has been asked whether we also would like to give extra support. The Executive Board of DFD has unanimously decided to support this initiative and donate $10,000, which will be matched by an extra $10,000 by APS.
2022 Meeting at a Glance

Meeting Venue
Indianapolis, the capital city of Indiana, lovingly called the Crossroads of America, sits in the heart of the state. Best known for the world-renowned Indy 500 motor race that takes place each year, Indianapolis has also gained acclaim for a flourishing culinary and brewing scene, thriving cultural institutions, interesting neighborhoods, and so much more. Its residents thrive on rooting for their home sports teams and riding bikes to their favorite dining spots. From sports to leisure to food, Indianapolis is a secret gem.

The meeting will take place at the Indiana Convention Center, located in downtown Indianapolis which is the cultural, economic and political center of the city with abundant restaurants, entertainment, performing arts venues, and museums within walking distance of each other.

Key Dates

Abstract Submissions
Abstract Submissions NOW OPEN
Abstract Submissions CLOSE: Monday, July 25, 5:00 pm EDT

Registration
• OPENS: early August
• Regular Registration Rate Available through October 14
• On-Site Registration Rate Begins: October 15
• Cancellation Deadline: November 9 (no registration refunds past this date)
• Check https://www.apsdfd2022.org/register/ for updates

Gallery of Fluid Motion (GFM) Submissions
GFM Portal is NOW OPEN
Visit http://gfm.aps.org to submit your entry

Intention to Submit Video and Poster Entry Deadline: September 16 at 5:00 pm EDT

Video Uploading Deadline: October 7 at 5:00 pm EDT

GFM Poster: Upload your poster by October 8 at 5:00 pm EDT and bring it to the meeting to display

Travel, Child Care, & Persons with Disabilities Grants
Application Portal is NOW OPEN
Visit https://www.apsdfd2022.org/conference-info/grants/ for links to the application forms

Applications due: August 1, 5:00 pm EDT
Grants applicants notified: September 1

Questions/Need Help?
Abstract Help Line: (301) 209-3290
Monday through Friday, 9:00 am – 5:00 pm EDT
abs-help@aps.org

Letters of Invitation
Letters of Invitation will be generated upon registering for the meeting for all international registrants. If you need one prior to this time, please email a request to: abs-help@aps.org Please note DFD Letter of Invitation in the subject line.

COVID-19 Questions
Please check the meeting website for updates on Covid-19 guidelines. Questions should be sent to: safemeetings@aps.org

Have General Questions?
Email dfd-help@meetingsandmore.net
Hotel Reservations
Reservation Site OPENS: July 1

Hotel Accommodations
Avoid housing scams – book directly through the DFD housing company!

A block of rooms with reduced rates has been reserved for the meeting. In order to get the best hotel rate, you must reserve through the APS block. It is important that participants stay at the host hotel and book through our housing website, so we secure all of our reserved rooms. Visit https://apsdfd2022.org/hotel-travel for more details.

Current hotels include:
Westin Indianapolis:
$179 plus tax - single/double/triple/quad

Crowne Plaza Indianapolis:
$159 plus tax - single/double/triple/quad

2022 Registration
Registration: https://www.apsdfd2022.org/register/

There will be one fee for attending the 2022 APS/DFD meeting regardless of virtual or in-person attendance. For best pricing, please register on or before Friday, October 14, as rates increase on October 15. When registering you will be asked how you plan to attend the meeting. However, you may change your participation status at any time without a fee.

Student Registrants**
APS student members may register for the meeting online at a discounted member rate. If you are not an APS member, you can JOIN NOW by contacting APS directly or going to https://aps.org/membership/ and clicking on “Student Membership.” If you do not wish to become an APS member, you must pay non-member rates.

First-year membership is free for first-time students and includes (2) free Divisions or Topical Groups for all students. Undergraduate registrations do not include a ticket to the Sunday night reception. Reception tickets may be purchased for $115.

2022 APS/DFD Events
Multiple information and networking events will be available to attendees. These will require advance sign-ups at the time of making your conference registration. Please check the meeting website for updates.

The Abstract Submission portal is now open

The Abstract Submission deadline is JULY 25. During abstract submission, you will select a sorting category for your abstract. Note that for 2022, it is expected that all presenters upload their talk prior to the meeting to the virtual platform.

Registration Fees In-Person or Virtual

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Awards Program
Each year the APS Division of Fluid Dynamics presents the Fluid Dynamics Prize, the François Frenkiel Award, the Andreas Acrivos Dissertation Award, and the Stanley Corrsin Award. The 2022 award winners, each of whom will give a lecture at the meeting, will be announced in the Fall.

Invited Lectures, Minisymposia, and Focus Sessions
This year, the meeting will consist of eight invited lectures on topics of broad interest to the DFD community. The program will also include three Minisymposia and six Focus Sessions. All Award Sessions, Invited Talks, Minisymposia, and most Focus Sessions will be recorded at the conference and available on the virtual platform.

The following Focus Sessions and Minisymposia have been selected for the 2022 meeting. Focus Sessions are open to all oral presenters.

Minisymposia:
- Fluids Next: The fluid mechanics of microplastics transport (Organizers: M.DiBenedetto and N. Ouellette)
- Reduced-order modeling in fluids via artificial and human intelligence (Organizers: G. Haller and B. Noack)
- Astrophysical turbulence: current understanding and modeling challenges (Organizers: D. Livescu and C. Fryer)

Focus Sessions:
- Diversity, Inclusion and Equity (Organizers: R. Ostilla-Mónico and T.A. Saxton-Fox)
- Fluids Next: Soft body slamming fluids (Organizer: S. Jung)
- Transport phenomena in active biological networks (Organizer: A. Pahalavan)
- The fluid dynamics of medical imaging (Organizers: V. Rayz and P. Vlachos)
- Acoustofluidics (Organizers: J. Friend and O. Manor)
- Turbulence modeling in bubble- and particle-laden multiphase flows (Organizers: C. Lai and R. Ni)

Poster Session
The meeting will have a Technical Poster Session and Student Poster Session on Monday afternoon in the Exhibit Hall.

To be considered for the Student Poster Competition, be sure to submit your poster to the sorting category titled “Fluid Dynamics - Student Poster Competition.” Posters submitted to any other category will not be included in the competition.

Virtual Component Presentations
All oral presenters who register for the meeting are expected to upload a 10-minute video of their presentation to the conference platform prior to the meeting. If you are unable to attend in person, the uploaded video will be shown to in-person attendees in Indianapolis in the room and time slot of your scheduled oral presentation.

All poster presenters are also expected to upload a pdf of their poster and are strongly encouraged to upload a two-minute video explaining their poster.

All Q&A for your presentation/poster will occur asynchronously via the meeting website. Award sessions, invited talks and a small number of key sessions will be recorded during the conference and included on the virtual platform contingent upon author consent.

Videos/posters will be available on the meeting platform to registered attendees for 30 days after the meeting.

Why Upload Your Video?
Uploading your presentation to the virtual meeting platform benefits the whole DFD community. There will be an award for the most watched video.

Advantages for uploading your video:
- Expands the reach of your research because virtual attendees can see your presentation. This includes those from around the world or locally who may not be able to travel to Indianapolis.
- Allows attendees to view presentations that overlap on the schedule.
- Allows attendees to go back and re-listen to a talk after the conference.
- Allows attendees to refer colleagues to talks of particular interest to their area of study.

It is in the best interest of the DFD community to UPLOAD your presentation and your participation is expected this year.

Networking Events
Throughout the three-day meeting, DFD will offer a series of networking events for a minimal fee. Please check the meeting website in July for a complete listing. Sign-up for these events will be available as you register for the conference.

Exhibitors
Exhibitors will be present at the meeting and a complete listing and description of each company will be posted on the meeting website. Please contact Margaret McDonald at Margaret2@meetingsandmore.net for more information.
**Gallery of Fluid Motion**

The annual Gallery of Fluid Motion will be held as part of the meeting. The Gallery consists of posters or videos submitted by attendees illustrating the science—and very often also the beauty—of fluid motion. Both computational and experimental entries are encouraged. Poster and video entries must not duplicate one another. Outstanding posters, selected by a panel of referees, will be recognized during the meeting, displayed at the Annual APS meeting in March 2023 and appear in the September 2023 issue of the *Physical Review Fluids*. Please note that the videos will be accessible online at gfm.aps.org.

Posters submitted to the Gallery must be uploaded prior to the meeting and also brought to the meeting to hang in the exhibit hall. Note that only those planning to attend the meeting in person should submit to the Gallery of Fluid Motion.

**Travel Grants, Child Care Grants and Grants for Participants with Disabilities**

In 2014 the APS/DFD External Affairs Committee initiated travel grants for the DFD meeting, designed to provide full support for attendance for a select few scientists (all researchers are eligible). Priority will be given to researchers who would not otherwise be able to attend the meeting, for whom the meeting comes at a timely point in their career and who have not previously attended a DFD meeting (applicants should address these points in their application).

DFD has also instigated a special childcare grant program designed to provide financial assistance to APS/DFD members who will have additional childcare expenses in order to attend and participate in the annual November meeting.

Additionally, DFD most recently started a program of grants to assist conference participants with disabilities. The program is designed to provide financial assistance and help offset costs for members attending the meeting who will incur additional expenses due to a disability.

The deadline for all three grant programs is August 1, 2022. More details on how to apply can be found under the Grants section of the meeting website: Visit https://www.apsdfd2022.org/conference-info/grants/

**Audiovisual Equipment**

All rooms will be equipped with an LCD projector, screen, microphone, and pointer. Speakers must provide their own laptop computer to use with the projector. A Speaker Ready Room with technicians will be available to help attendees ensure that their presentations work smoothly with the LCD projection equipment. We suggest all presenters visit the Speaker Ready Room in advance of their presentation. For those not in attendance, your virtual presentation will be uploaded and played in the designated session room during your time slot.

**Conference Reception**

The 2022 meeting will host a reception on Sunday, November 20 at the Convention Center. Gather with friends and colleagues in a relaxed atmosphere and enjoy catching up in person.

**Future APS/DFD Meetings**

**2022: Indianapolis, IN**  
Meeting Co-Chairs  
Luciano Castillo, Purdue University  
Arezoo Ardekani, Purdue University

**2023: Washington, DC**  
Meeting Co-Chairs  
Kenneth Kiger, University of Maryland  
Michael Plesniak, George Washington University

**2024: Salt Lake City, UT**  
Meeting Co-Chairs  
Marc Calaf, University of Utah  
Henry Fu, University of Utah

**2025: Houston, TX**  
Meeting Co-Chairs  
William Anderson, University of Texas-Dallas  
Paul Krueger, Southern Methodist University
APS/DFD 2021 Awards, Prizes, New Fellows, and Gallery Winners

2021 Fluid Dynamics Prize and Otto Laporte Lecture
The Fluid Dynamics Prize recognizes and encourages outstanding achievement in fluid dynamics research.

David Quéré
ESPCI-Paris

For seminal contributions to wetting of surfaces and interfacial hydrodynamics by revealing the physics of the phenomena through reduction to their simple core. Otto Laporte Lecture: Of the Surface of Things

2021 François Frenkiel Award
The Division of Fluid Dynamics awards The François Frenkiel Award to young investigators in recognition of significant contributions to Fluid Mechanics that have also been published during the previous year in Physical Review Fluids.

Rodolfo Brandão
Imperial College London

The paper was recognized for its insightful application of asymptotic methods and bifurcation theory to elucidate the transition to rolling in Leidenfrost droplets. The authors’ analysis contributes significantly to understanding this surprising symmetry breaking mechanism and predicts post-transition accelerations that agree qualitatively with recent experiments. Lecture: Spontaneous Dynamics of Leidenfrost Drops

Ory Schnitzer
Imperial College London

2021 Stanley Corrsin Award
The Stanley Corrsin Award recognizes and encourages a particularly influential contribution to fundamental fluid dynamics. It was established from an endowment fund contributed by the DFD and held by APS is intended to honor a recent achievement of especially high impact and significance, a particular discovery, or an innovation in the field.

Tim Colonius
California Institute of Technology

For development, exposition, and combined application of computational and modal decomposition tools to understand coherent structures in turbulent flows and for continuing leadership in aeroacoustics and turbulence. Lecture: Turbulence Structure and Modeling in the Frequency Domain

2021 Andreas Acrivos Dissertation Award
The Andreas Acrivos Dissertation Award recognizes a young scientist who has performed original doctoral thesis work of outstanding scientific quality and achievement in the area of fluid dynamics.

Wai Hong Ronald Chan
University of Colorado Boulder

For developing a novel theoretical and computational framework which established fundamental insights into the turbulent bubble breakup cascade in oceanic breaking waves. Lecture: Locality in the turbulent bubble breakup cascade
2021 New Fellows

**Antony N. Beris**  
*University of Delaware*  
*Citation:* For groundbreaking contributions to the theory and computation of viscoelastic flows, specifically for an innovative nonequilibrium thermodynamics-based formalism for complex fluids, and for pioneering and insightful computational studies of viscoelastic instabilities and turbulent drag reduction.

**Daniel Bonn**  
*Institute of Physics, University of Amsterdam, Netherlands*  
*Citation:* For significant contributions to the mechanics and flow stability of a wide range of simple and complex fluids, including granular fluids, yield-stress fluids, concentrated suspensions, emulsions, and polymer solutions, with particular applications to shear banding, droplets, and jets.

**Lydia Bourouiba**  
*Massachusetts Institute of Technology*  
*Citation:* For fundamental work in quantitatively elucidating the mechanisms of droplet impact and fragmentation, and for pioneering a new field at the intersection of fluid dynamics and transmission of respiratory and foodborne pathogens, with clear and tangible contributions to public health.

**Christine Hrenya**  
*University of Colorado Boulder*  
*Citation:* For key advancements in the fundamental understanding of granular matter and multiphase systems via a combination of theory, experiments, and simulations.

**Matthew P. Juniper**  
*University of Cambridge, UK*  
*Citation:* For fundamental contributions to hydrodynamic and thermoacoustic stability, for physical insight into the nonlinear behavior of thermoacoustic systems, and for the application of linear stability methods and adjoint methods to wide-ranging engineering problems.

**Thomas Peacock**  
*Massachusetts Institute of Technology*  
*Citation:* For pioneering investigations into the dynamics of internal waves and internal tides in the ocean using imaginative laboratory experiments and field studies, for the identification of Lagrangian coherent structures in turbulent flow, and the application of fluid mechanics to deep-sea mining.

**Jörg Schumacher**  
*Technische Universität Ilmenau, Germany*  
*Citation:* For spectacular work advancing the state-of-the-art simulations and a better understanding of turbulent flows, including convection, passive scalars, cloud microphysics, and universality of transition to turbulence.

**Amy Q. Shen**  
*Okinawa Institute of Science and Technology Graduate University, Japan*  
*Citation:* For contributions to our understanding of bifurcations and instabilities in flows of complex fluids at small length scales, and for the design of ingenious microfluidic experiments.
2021 Student Poster Competition Winners
The Technical Poster Session of the DFD Meeting is open to all participants. Students are eligible for the poster competition and should indicate they want to be viewed as such when they submit. Posters with mainly artistic content are recommended to be submitted to the Gallery of Fluid Motion.

In 2021, student posters were judged in two categories and the award winners are noted below.

Theoretical/Computational
1st prize: Atomization of a Pulsed Liquid Jet by Volume of Fluid Method
Y. Kulkarni, R. Villiers, M. Crialesi-Esposito, C. Pairetti, S. Zaleski, S. Popinet

2nd prize: Regime Classification for Stratified Wakes from Planar Velocity Field Snapshots Using Convolutional Neural Networks
V. Chinta, M. Jones, M. Yee, P. Loekman, C. Ohh, G. Spedding, M. Luhar

Experimental
1st prize: Leading-edge Vortex Evolution Over an Impulsively Rotated Wing
A. Gururaj, M. Moaven, S. Morris, B. Thurow, V. Raghav

2nd prize: Investigation of Acoustic Spectrum in a Simplified Model of Aortic Valve Stenosis
M. Spaulding, A. Barbosa Gonzalez, C. Byers

2021 Meeting Highlights
The 2021 DFD meeting was held as a primarily in-person meeting at the Phoenix Convention Center in Phoenix, Arizona. The conference included 4 award lectures, 8 plenary invited talks, 3 minisymposia, and 5 focus sessions. Almost 2600 people registered for the meeting with nearly 2000 being able to attend the meeting in-person in Phoenix.

The meeting was held at a challenging time, with Covid-19 related restrictions and mandates ever evolving. Safety of the in-person attendees was a primary focus, with masking, vaccine, and testing mandates in-place during the meeting and enlarged meeting spaces to enable social distancing whenever possible. Fortunately, the weather in Phoenix cooperated and the reception could be held outside the convention center. For participants unable to attend the meeting in-person, the conference provided a virtual component that included conference recordings of all invited talks, mini-symposia, most focus sessions, and selected general sessions, in addition to any presentations uploaded by regular participants.

For many attendees, the conference was the first in-person meeting after an all-too-long enforced hiatus of in-person meetings due to the pandemic. Although there certainly were many challenges, the very fact we were able to meet again in person probably was one of the highlights of the meeting.

2021 Phoenix Meeting Co-Chairs
Marcus Herrmann, Arizona State University
marcus.herrmann@asu.edu

Konrad Rykaczewski, Arizona State University
Konradr@asu.edu
2021 Gallery of Fluid Motion Poster and Video Winners
As has long been the tradition, the best posters and videos are chosen amongst the entries at the meeting each year. The top three from each category are awarded the Milton Van Dyke Award for fluid flow visualization. The posters and videos can be viewed at gfm.aps.org.

2021 Gallery of Fluid Motion Awards

Gallery of Fluid Motion - Video Winners
V0013 Large-eddy simulation of cumulus clouds
Georgios Matheou

V0060 Atomization of the optimally disturbed liquid jets
Hanul Hwang, Dokyun Kim, Parviz Moin

V0073 The Yarning Droplet
Carola Seyfert, Alvaro Marin

V0053 DNS of turbulent pipe flow at high Reynolds number
Alessandro Ceci, Sergio Pirozzoli, Joshua Romero, Massimiliano Fatica, Roberto Verzicco, Paolo Orlandi

Gallery of Fluid Motion - Poster Winner
P0036 Mixing in Time-Periodic Chaotic Flows with Bacteria
Ranjianzhong Ran, Quentin Brosseau, Rebecca Winter, Paulo Arratia, Brendan Blackwell, Boyang Qin

Milton Van Dyke Video Awardees

V0069 Fragmentation of two-phase compound liquid ligaments
Virgile Thievenaz, Alban Sauret

V0038 Flow-focusing from interacting cavitation bubbles
Arpit Mishra, Parthasarathi Ghosh, Arpit Mishra, Arnab Roy, Rajaram Lakkaraju, Claire Bourquard, Outi Supponen

V0036 Chemical Flowers: buoyancy-driven instabilities under modulated gravity
Yorgos Stergiou, Kerstin Eckert, Karin Schwarzenberger, Dezso Horvath, Gabor Schuszter, Marcus Hauser, Anne De Wit,

Milton Van Dyke Poster Awardees

P0041 Confined Rayleigh-Taylor instability
Samar Algatari, Thomas Videbæk, Sidney R. Nagel, A. E. Hosoi, Irmgard Bischofberger

P0037 Shattered to pieces: cracks in drying drops
Paul Liilin, Irmgard Bischofberger

P0005 Gas transfer from breaking waves
Palas Kumar Farsoiya, Luc Deike, Stephane Popinet
Stephen H. Davis, Walter P. Murphy Professor Emeritus of Engineering Sciences and Applied Mathematics at Northwestern University, passed away on November 21, 2021 at age 82. Both the Division and the international fluid dynamics community have lost one of their most highly accomplished and most dedicated members.

Steve was a committed and effective leader of three major activities. He served as Division Chair in 1979 and again in 1988, a period of remarkable growth in the size and scope of the annual meeting. Many will remember his omnipresence at the meeting and “holding court” during the breaks. Second, Steve served as Editor of the Journal of Fluid Mechanics from 2000 to 2010, providing strong leadership and a broadening of its scope during a period of transition for the journal. Third, Steve served as co-Editor of the Annual Review of Fluid Mechanics from 2001 to 2021. In those 20 years, Steve was a discriminating steward of the high standards of excellence that characterize ARFM. Anyone participating in its annual meeting will recall his adept managing of the discussion, interspersed with his trademark humor, as he led the group to a consensus selection of articles for the following issue.

Steve’s research contributions are as broad as they are deep. His curiosity and mathematical expertise led to seminal contributions in thermal convection, bifurcation theory, hydrodynamic stability, interfacial phenomena, materials science, thin films, crystal growth, and asymptotic and variational methods. He published four books, three ARFM articles, and over 200 papers, many of which are highly referenced decades after their appearance. As a research advisor, he had the ability to suggest relevant, timely problems, to see the end from the beginning, and to know that the topic would yield important and lasting results.

Steve received all his degrees from Rensselaer Polytechnic Institute, following which he took up a position at the Rand Corporation. This was followed by a stay at Imperial College, London before joining the faculty at Johns Hopkins University. Steve then joined Northwestern University in 1979 as a professor in the Department of Engineering Sciences and Applied Mathematics, where he played a key role in the growth and increase in stature of that Department. Such was his influence that Northwestern established the Stephen H. Davis Symposium in 2019 in his honor.

Steve was elected to the National Academy of Engineering (1994), to the American Academy of Arts and Sciences (1995), and to the National Academy of Sciences (2004). His other honors include the Fluid Dynamics Prize from the American Physical Society (1994), the G.I. Taylor Medal from the Society of Engineering Science (2001), the Royal Academy of Engineering Distinguished Visiting Fellowship, and election into the Academia Europaea.
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