Welcome to the 2023 edition of the Division of Fluid Dynamics Spring/Summer Newsletter. After a challenging couple of years, our Division of Fluid Dynamics can return its full attention to its mission of advancing and diffusing knowledge of the physics of fluids. Our main event is the Annual Meeting, and in this letter, you will find highlights of the successful 75th Annual DFD Meeting in Indianapolis where significant growth in attendance signaled COVID recovery. Also provided are details of the upcoming 2023 Annual Meeting in Washington, DC where we anticipate numbers to return to or even exceed pre-pandemic levels. It is a sign of a healthy and vibrant scientific community that engagement occurs at all career levels and new ideas are spontaneously initiated by a broad cross-section of the membership. In this newsletter you will find details of many new initiatives ranging from pioneering online scientific exchange to enhancing diversity and exploring the relationship between art and science.

In 2018, APS committed to fulfill its aspiration to become a Welcoming Global Hub for the world’s physicists. In this spirit and inspired by the successful online journal club of Physical Review Fluids, DFD is planning to initiate regular interactive online events focused on exploring future directions in particular subfields of fluid dynamics, from fundamental understanding of fluid motion to practical answers to 21st-century challenges. Another timely theme is advocacy for fluid dynamics within the wider context of society and the environment. Recent noteworthy initiatives include “Our Fluid Nation” report by the UK Fluids Network and Leeds Institute for Fluid Dynamics, which quantifies the economic worth of Fluid Dynamics to the UK Economy, and a similar initiative just published in the Netherlands, both of which I would encourage you to peruse.

We look forward to our upcoming 76th Annual Meeting in Washington, DC where we will bypass the hybrid format of the past two years.

Continued on page 2.
to hold a 100% in-person meeting. The abstract submission portal is now open and closes on Friday, July 25th. To enable growing numbers of participants to present their work, we will implement Oral Flash Presentations to promote posters, as was successfully trialed in Seattle in 2019. You will find all the required information in this Newsletter and on the meeting website.

The Annual Meeting in Washington, DC will also coincide with the closing of a chapter for DFD after 25 years of outstanding service from Meetings And More, during which the Annual Meeting has more than tripled in size. On behalf of the DFD leadership and local organizers past and present, I would like to express our gratitude to Monica Malouf, Peggy Holland, and colleagues for the skill and expertise they have brought to the organization of so many DFD Annual Meetings.

The beauty and intricacy of fluid dynamics has its annual showcase in the Gallery of Fluid Motion. This year our new Travelling Gallery of Fluid Motion will reach out beyond our scientific community with an exhibition at the Cultural Program of the National Academy of Sciences in Washington, DC to explore the multifaceted relationship between science and art. This program will run through Fall and Winter and we hope you will find time for a visit during the Annual Meeting. At the same time, the Media and Science Relations Committee has been working hard planning the relaunch of DFD’s social media presence and are now calling for expression of interest to help with posting, with early career researchers particularly encouraged due to their superior expertise!

The COVID pandemic has brought into sharp focus the unique professional challenges faced by women and other underrepresented groups. It is exciting to witness the wealth of creative ideas and mitigating initiatives that are emerging from our community. The Annual Meeting in Washington will see the creation of a new sorting category to provide a forum to discuss and organize diversity and inclusion strategies. In this newsletter, you can read about an initiative to provide a written platform for women to inspire and mentor other women and girls to pursue and succeed in careers in fluid dynamics, as well as instructions about how to support and/or get involved.

In closing, I would like to thank all those who commit time and expertise to further the aims of our Division of Fluid Dynamics. It may also be worth recalling that more broadly, APS has an impressive track record in science advocacy, which individual members can contribute to through [www.aps.org/policy](http://www.aps.org/policy).

Anne Juel
2022–23 Chair
APS-Division of Fluid Dynamics

---

**DFD Adopts Price Equity for Less-Resourced Countries Following APS March and April Meetings**

The 2023 DFD Annual Meeting in Washington, DC will follow APS March and April meetings in applying price equity for less-resourced countries. Scientists with verified residency in countries classified by the World Bank as lower-income countries (LICs), lower-middle-income countries (LMICs), and upper-middle-income countries (UMICs) will now benefit from tiered registration pricing to minimize a financial barrier to attendance. See [https://www.aps.org/meetings/policies/price-equity.cfm](https://www.aps.org/meetings/policies/price-equity.cfm) for further details.
Meeting Venue
Walter E. Washington Convention Center
Washington, DC

From monuments and memorials to vibrant neighborhoods filled with character and charm, DC is a memorable, world-class destination filled with breathtaking views, unique venues, award-winning hotels and hundreds of free things to do. Enjoy the iconic monuments along the beautiful National Mall, acclaimed theater at renowned venues like the John F. Kennedy Center for the Performing Arts and Arena Stage, outstanding shopping in historic Georgetown and inside the fashion-forward CityCenterDC, and great sporting entertainment from five professional franchises.

DC offers unique cultural diversity, pairing international influence with a distinct local identity. DC’s nightlife and renowned dining scene are filled with culinary talent and variety, a fact proven by annual Michelin Guide treatment.

DC is easy to access with three convenient airports. Traversing the city is simple, whether by foot, via bike rental with Capital Bikeshare or through the city’s efficient Metrorail system. The nation’s capital is a go-to destination for a successful and unforgettable visit.

For more information on Washington, DC visit washington.org.

Key Dates

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

Registration
Visit DFD REGISTRATION for updates

The 2023 meeting will be an in-person meeting without a virtual component.
- Registration OPENS: August 21
- Cancellation Deadline: November 1 (no refunds past this date)

<table>
<thead>
<tr>
<th>Registration Rates</th>
<th>EARLY through 9/19</th>
<th>REGULAR 09/20–10/24</th>
<th>ONSITE 10/25–11/21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member/Reciprocal Rate</td>
<td>$640</td>
<td>$750</td>
<td>$840</td>
</tr>
<tr>
<td>Non-Member</td>
<td>$925</td>
<td>$1,000</td>
<td>$1,050</td>
</tr>
<tr>
<td>Graduate Member*</td>
<td>$330</td>
<td>$365</td>
<td>$450</td>
</tr>
<tr>
<td>Retired Member (with APS Senior Membership)</td>
<td>$350</td>
<td>$385</td>
<td>$445</td>
</tr>
<tr>
<td>Undergraduate Member*</td>
<td>$135</td>
<td>$135</td>
<td>$195</td>
</tr>
</tbody>
</table>

*Student Registrants
APS student members may register for the meeting on-line 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 applicants and includes (2) free Divisions or Topical Groups for all students. Undergraduate registrations do not include a ticket to the Sunday night reception, however reception tickets may be purchased during the registration process.

2023 APS/DFD Events
Multiple networking events will be available to attendees. These will require advance sign-ups when you register for the meeting. Please check the meeting website for updates. Those that include a meal will have a $10 fee.

Gallery of Fluid Motion (GFM) Submissions
The GFM Submission Portal will be open on or about July 15. Visit gfm.aps.org for updates and to submit your entry.

Please note that videos and posters must be uploaded. Additionally, poster presenters should bring a copy of their poster to the meeting to hang in the exhibit hall.

Video and Poster Uploading Deadline: September 15 – 5:00 pm EDT

Please note that the upload date is earlier than in previous years.

Travel, Child Care, & Persons with Disabilities Grants
The Application Portal is NOW OPEN
Visit DFD GRANTS for links to the application forms.

Applications due: August 4, 5:00 pm EDT
Grants applicants notified: September 15
Hotel Reservations
Hotel Reservations OPEN on or before July 1
Visit the meeting website for more information.
To keep conference registration rates as low as possible, it is important participants book their stay at a conference hotel using the links provided.
- A valid credit card is needed to guarantee your reservation.
- The deadline for the discounted hotel rates is October 17, 2023, or earlier if the DFD block sells out.
- Smoking is not permitted in hotels.
- The Marriott Marquis is connected to the Convention Center.

Marriott Marquis Washington, DC
901 Massachusetts Ave. NW
Washington, DC
Connected to the Convention Center
Rates
Single/Double: $159 + 15.95 % per room per night
Triple/Quad: $175 + 15.95 % per room per night
One of its flagship hotels, the Marriott Marquis Washington, DC is designed for the global traveler. Located across the street from the Convention Center, the Hotel is also within walking distance of historic attractions, restaurants, and exciting nightlife, uncovering the allure of sites in the downtown DC area.
- Free Wi-Fi in sleeping rooms for all Marriott Bonvoy members.
  Membership is complimentary.
- Complimentary fully equipped, 24-hour fitness center
- A safe, refrigerator, and coffee maker are in each room.

Renaissance Washington, DC
999 9th Street NW
Undergoing renovations; will still be part of Marriott's portfolio as a Westin by the time the Meeting begins.
Rates
Single/Double: $149 + 15.95 % per room per night
Triple/Quad: $169 + 15.95 % per room per night
Located two (2) blocks from the Convention Center, the Renaissance puts you at the epicenter of the Nation's capital scene. From museums to monuments, this is the perfect base for exploring DC.
- Wi-Fi in sleeping rooms is complimentary for all Marriott Bonvoy members. There is no charge for becoming a member.
- Complimentary fully equipped, 24-hour fitness center
- In the room: safe, refrigerator, coffee maker
- On-site parking: $36 Daily

2023 Scientific Program
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 2023 award winners, each of whom will give a lecture at the meeting, will be announced in the Fall.
Please note that in 2023 there will not be a virtual component to the meeting so there will be no uploading of presentations and recordings will not be available.
Invited Lectures, Minisymposia, and Focus Sessions
We are excited that the meeting will consist of twelve invited lectures on topics of broad interest to the DFD community. The program will also include four Minisymposia and three Focus Sessions.
The following Focus Sessions and Minisymposia have been selected for the 2023 meeting. Focus Sessions are open to all oral presenters.
Minisymposium Topics
The Stories of Women in Fluids
Organizer: Kelli Hendrickson
Fluids Next: Low Prandtl Number Dynamics in Stellar and Planetary Interiors
Organizers: Pascale Garaud & Jon Aurnou
Intra-ventricular Fluid Mechanics in Heart Failure
Organizers: Alberto Aliseda & Fanette Chassagne
Fluid Dynamics in Clinical Imaging
Organizers: Vitaliy Rayz & Pavlos Vlachos
Focus Session Topics
Fluids Next: Fluid Dynamics of Injury
Organizers: Anne Staples & Qianhong Wu
Culinary Fluid Mechanics
Organizer: Arnold Mathijssen
Chaotic Flows in Polymeric Solutions
Organizer: Moritz Linkmann

BEWARE OF HOUSING SCAMS!
Tech-savvy scammers create fake reservations and websites that look legitimate. If you make your reservation through these sites, you risk not having a hotel room when you arrive and have no recourse.
Oral Flash Presentations are Back in 2023
This year’s DFD meeting will reintroduce Oral Flash Presentations as an alternative presentation modality. Thus, submissions for Oral Presentations will have two choices:
- the traditional 12-minute oral presentation, or
- a one-minute Oral Flash Presentation with an accompanying poster presentation. Note that this option is only available for oral submissions. Abstracts submitted as Gallery of Fluid Motion Posters, Student Posters, or Technical Posters will not be eligible for Flash Presentations. Oral flash presenters should bring their posters to the meeting and hang them in the exhibit hall in the designated location by Sunday at noon.

The Flash Presentation sessions will take place in parallel on Monday afternoon in the same Ballrooms used for the Invited Talks. Each session will consist of approximately 70 one-minute presentations, with each presenter having a single slide (PDF format, no animations or music), submitted in advance of the meeting, summarizing their work. To maximize the audience during these presentations, the sessions will be the only sessions scheduled for this time. These sessions will be immediately followed by the poster session in the Exhibit Hall, where presenters can continue in-depth discussion of their work at their poster.

To be considered for a Flash Presentation, the submitter will check a box during submission of their oral abstract. If this box is not checked, then the abstract will be assigned a traditional 12-minute oral presentation and not be considered for a Flash Presentation. A committee will review the submissions, and the top 210 will be placed into the Oral Flash Presentation sessions. All other abstracts will be assigned to a traditional session in accordance with APS guidelines.

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.

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 list 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 2024 and appear in the September 2024 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.

New this year, videos and posters must be uploaded by September 15th, which is earlier than in previous years. Additionally, DFD is launching a Traveling Gallery of Fluid Motion. The first exhibit will be launched in Washington, DC.

Traveling Gallery of Fluid Motion
Time: October 2, 2023 – February 23, 2024
Location: National Academy of Sciences Building
Upstairs Gallery
2101 Constitution Ave. NW, Washington, DC
Hours: 9 am to 5 pm on weekdays
Closed weekends and holidays
Admission is free! Reservations are not required.
NOTE: Government-issued photo IDs such as a driver’s license or passport must be provided.
This Fall and Winter, we encourage you to visit the APS-DFD “Travelling Gallery of Fluid Motion” exhibition at the Cultural Program of the National Academy of Sciences (CPNAS) from October 2, 2023, to February 23, 2024. This event is part of the Academy’s innovative program that explores the connections between art and science, found at http://www.cpnas.org/. This exhibit will feature museum-quality displays, such as sculptures, framed pictures, and immersive video installations, and will provide visitors with a unique and captivating experience of fluid dynamics.
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.

Grant Application Portal is NOW OPEN
Visit GRANTS for links to the application forms
Applications due: August 4, 5:00 pm EDT
Grants applicants notified: September 15

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.

Conference Reception

NEW THIS YEAR

There are many beautiful venues to hold a reception in Washington, DC but regrettably, DFD has outgrown them all. As a result, this year’s reception will be held at the Convention Center in its beautifully designed common space. The event will offer a variety of light hors d’oeuvres and beverages (including beer and wine) instead of a full meal, allowing participants time to enjoy the city.

The cocktail reception will be included in the registration fee for those who register as APS Members, Non-members, Graduate Students, and Retired Members. Undergraduate students and guests may purchase tickets as they register for the meeting.

Relaunch of DFD Social Media Platform

The APS-DFD will soon increase its presence in several social media platforms and we are currently looking for motivated junior APS-DFD members to become social media officers. The selected officer(s) will take care of gathering content and post regularly, and they will be supervised and supported by the Media and Science relations committee of the APS-DFD. Those interested should contact the Chair of the Media and Science Relations Committee Alvaro Marin (a.marin@utwente.nl).

New Sorting Category: Machine Learning and Data Science Techniques

Within Sorting Categories 1–8, there is a new subcategory on Machine Learning and Data Science Techniques. These are added in response to growing interest in these topics in fluid dynamics research. The Program Committee will carefully review submissions to possibly create a combined meta-session that combines closely related topics.

Additionally, due to significant interest, the Diversity, Equity and Inclusion category has been moved from a Focus Session to sorting category 41.
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

2026: Orlando, FL
Meeting Co-Chairs
Sivaramakrishnan “Bala” Balachander, University of Florida
Jason Butler, University of Florida

2022 Meeting Highlights
The 2022 DFD meeting was a resounding success, with almost 3100 people registering and nearly 2800 attending the meeting in person at the Indianapolis Convention Center. The 2022 DFD meeting had a theme of Fluid Dynamics & the World’s Grand Challenges, including four award lectures, eight plenary invited talks, three minisymposia, and five focus sessions. For participants unable to attend the meeting in-person, the conference provided a virtual component that included conference recordings of all invited talks, minisymposia, and focus sessions, in addition to presentations uploaded by regular participants.

Several new initiatives were introduced at the conference, including a Peer Mentoring Program, a networking/mentoring program for DFD members, a career fair, and two career workshops. The conference provided opportunities for young investigators and undergraduate students to learn about funding and career opportunities in academia and industry. A panel of early career award winners provided insights into managing funded research programs and achieving success in the field. Additionally, the Underrepresented Minorities in Research networking event provided an opportunity for fluid mechanics researchers from underrepresented minority groups to build community, network with others, and create a platform for mentoring.

The conference also welcomed local high school teachers and students, who visited the Gallery of Fluid Motion during the conference. Overall, the 2022 DFD meeting delivered a positive experience for participants and demonstrated the impact of fluid dynamics research on global challenges such as education, water security, climate change, and health.

Arezoo Ardekani
Purdue University
2022 Awards, Prizes, New Fellows, and Gallery Winners

2022 Fluid Dynamics Prize and Otto Laporte Lecture
The Fluid Dynamics Prize recognizes and encourages outstanding achievement in fluid dynamics research.

Recipient: Elisabeth Charlaix
Univresité Grenoble Alpes
Citation: For a ground-breaking exploration of the liquid-solid interface leading in particular to a quantitative understanding of the Navier slip condition, based on an exquisite surface force apparatus developed for this purpose.

Lecture Title: Hydrodynamics liquids at solid surfaces, from simple to complex fluids

2022 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.

Recipients:
Nikhil Desai Sébastien Michelin
Ecole Polytechnique
Citation: For a remarkable combination of modeling, numerical simulations, and analysis that led to the characterization of the striking and counterintuitive dynamics of chemically-active particles near a wall.

Lecture Title: Chemically-active drops swimming near a wall
Speaker: Sébastien Michelin

2022 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.

Recipient: Daphné Lemasquerier
Aix-Marseille Université
Citation: For an insightful and comprehensive study, based on innovative and elegant laboratory experiments, numerical analysis, and theoretical modeling, of the non-linear dynamics of Jupiter, including its shallow vortices, deep jets, and their complex interactions.

Lecture Title: Insights into Jupiter’s dynamics from laboratory experiments
2022 New Fellows

Arezoo Ardekani  
Purdue University  
Citation: For highly innovative theoretical and computational research on the fluid dynamics of the motion of particles and microorganisms in a range of fluids, including complex fluids and stratified fluids.

Paulo Arratia  
University of Pennsylvania  
Citation: For creative and insightful experimental discoveries in the fields of complex and biological fluid mechanics.

Jose Gordillo Arias de Saavedra  
Universidad de Sevilla  
Citation: For insightful and profound contributions to the theory of drop splashing, especially for describing the first ejecta sheet, and to the formation of monodisperse micro-droplets, bubbles, and encapsulation from stretched jets.

Eva Kanso  
University of Southern California  
Citation: For penetrating and insightful investigations of problems in biological aquatic and aerial locomotion, ciliary transport, swarms and schooling, and many other topics, that deftly blend elegant theoretical models and physical experiments.

Nicholas T. Ouellette  
Stanford University  
Citation: For contributions to our understanding of the Lagrangian nature of turbulence, and the dynamics of self-organization in active matter.

Wolfgang Schröder  
RWTH Aachen University, Institute of Aerodynamics  
Citation: For pioneering contributions to transport aerodynamics, from widely used foundations of high-performance multi-physics simulations to experimental measurement techniques and effective drag reduction solutions.

Jean-Luc Thiffeault  
University of Wisconsin — Madison  
Citation: For innovative contributions to the understanding of mixing and transport in dynamical systems, including the development of topological methods, and the understanding of enhanced diffusion by swimming micro-organisms.

Tamer A. Zaki  
Johns Hopkins University  
Citation: For fundamental contributions to linear and non-linear theories of bypass transition, novel applications of data science to fluid mechanics, and innovative numerical simulations of Newtonian and non-Newtonian flows with practical applications.

Congratulations to the 2022 Student Poster 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 2022, student posters were judged in two categories and the award winners are noted below.

Theoretical/Computational

1st prize: Poster 34 – “A modular method for estimation of velocity and temperature profiles in high-speed boundary layers” by Vedant Kumar and Johan Larsson from University of Maryland

2nd prize: Poster 10 – “Some insight into frost growth in turbulent moist air flow using direct numerical simulations” by Marsha Farzaneh, Nadim Zgheib, S.A. Sherir, and Sivaramakrishnan Balachandar from University of Florida and University of Texas Rio Grande Valley

Experimental

1st prize: Poster 46 – “Evolution of the first bubble: bubble and jet formation within a wine bottle” by Wanjiku Gichigi, Tuyetthuc Nguyen, and Hans C. Mayer from California Polytechnic State University, San Luis Obispo

2nd prize: Poster 49 – “Sliding motion of bubbles in an inclined turbulent channel flow” by Dongik Yoon, Hyun Jin Park, Yuji Tasaka, and Yuichi Murai from Hokkaido University, Japan
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.

### Milton Van Dyke Video Award Winners

**V0076: Simulation of an RCCI Engine using the Pele Suite of Exascale Codes**
- Nicholas Wimer, National Renewable Energy Laboratory
- Lucas Esclapez, National Renewable Energy Laboratory
- Nicholas Brunhart-Lupo, National Renewable Energy Laboratory
- Marc Henry de Frahan, National Renewable Energy Laboratory
- Mohammad Rahani, National Renewable Energy Laboratory
- Malik Hassanaly, National Renewable Energy Laboratory
- Jon Rood, National Renewable Energy Laboratory
- Shashank Yellapantula, National Renewable Energy Laboratory
- Hariswaran Sitaraman, National Renewable Energy Laboratory
- Bruce Perry, National Renewable Energy Laboratory
- Michael Martin, National Renewable Energy Laboratory
- Olga Doronina, National Renewable Energy Laboratory
- Sreejith Nadakkal Appukuttan, National Renewable Energy Laboratory
- Martin Rieth, Sandia National Laboratory
- Marc Day, National Renewable Energy Laboratory

**V0036: Message in a Bottle – First Bubble High-Speed Imaging**
- Hans Mayer, Department of Mechanical Engineering – Cal Poly San Luis Obispo (SLO)
- Tuyetthuc Nguyen, Department of Mechanical Engineering – Cal Poly San Luis Obispo (SLO)
- Wanjiku Gichigi, Department of Mechanical Engineering – Cal Poly San Luis Obispo (SLO)

**V0008: Turbulence through sustained vortex ring collisions**
- Takumi Matsuzawa, The University of Chicago
- Noah Mitchell, The University of Chicago
- Stéphane Perrard, The University of Chicago
- William Irvine, The University of Chicago

**V0037: Direct numerical simulation of a micro-ramp in a high-Reynolds number supersonic turbulent boundary layer**
- Francesco Salvadore, HPC Department, CINECA
- Antonio Memmolo, HPC Department, CINECA
- Davide Modesti, Faculty of Aerospace Engineering, Delft University of Technology
- Giacomo Della Posta, Dept. of Mechanical and Aerospace Engineering, University of Rome La Sapienza
- Matteo Bernardini, Dept. of Mechanical and Aerospace Engineering, University of Rome La Sapienza

**V0040: Run, Faraday, Run**
- Jian Hui Guan, University of North Carolina at Chapel Hill
- Connor Magoon, University of North Carolina at Chapel Hill
- Matthew Durrey, University of Glasgow
- Roberto Camassa, University of North Carolina at Chapel Hill
- Pedro Saenz, University of North Carolina at Chapel Hill

### Milton Van Dyke Poster Award Winners

**P0039: Mushroom Vortex Street**
- Meng Shi, High-Speed Fluids Imaging Laboratory, Physical Science and Engineering Division, King Abdullah University of Science and Technology (KAUST)
- Sigurdur Thoroddsen, High-Speed Fluids Imaging Laboratory, Physical Science and Engineering Division, King Abdullah University of Science and Technology (KAUST)

**P0005: Multiple vortex tornadoes in bucket**
- Giuseppe Di Labbio, École de Technologie Supérieure, Montreal Quebec, Canada
- Hamid Ait Abderrahmane, Mechanical Engineering, Khalifa University, UAE
- Mohamed Fayed, American University of the Middle East, Kuwait
- Hoi Dick Ng, Concordia University, Montreal Quebec, Canada

### Gallery Poster Winners

**P0027: Self Inducing Subharmonic Waves**
- Debashis Panda, Department of Chemical Engineering, Imperial College London, UK
- Lyes Kahoudadji, Department of Chemical Engineering, Imperial College London, UK
- Seungwon Shin, Department of Mechanical and System Design Engineering, Hongik University, Seoul, Republic of Korea
- Jalel Chergui, Université Paris Saclay, Centre National de la Recherche Scientifique (CNRS), Laboratoire Interdisciplinaire des Sciences du Numérique (LISN), Orsay, France
- Damir Juric, Université Paris Saclay, Centre National de la Recherche Scientifique (CNRS), Laboratoire Interdisciplinaire des Sciences du Numérique (LISN), Orsay, France
- Omar Matar, Department of Chemical Engineering, Imperial College London, UK

### Gallery Video Winners

**V0085: Thin film flow between fibers: inertial sheets and liquid bridge patterns**
- Chase Gabbard, Clemson University
- Joshua Bostwick, Clemson University
- Bavand Keshavarz, MIT
- Michela Geri, MIT

**V0115: A Mandelbrot granular raft**
- Marc Henry de Frahan, National Renewable Energy Laboratory
- Francesca Formentin, HPC Department, CINECA
- Arne Schönbohm, HPC Department, CINECA
- Antonio Memmolo, HPC Department, CINECA
- Davide Modesti, HPC Department, CINECA
- Matteo Bernardini, Dept. of Chemical and Aerospace Engineering, University of Rome La Sapienza
- Matteo Bernardini, Dept. of Chemical and Aerospace Engineering, University of Rome La Sapienza

**V0030: Sculpting the Sphinx**
- Samuel Boury, Courant Institute of Mathematical Sciences
- Scott Weady, Courant Institute of Mathematical Sciences
- Leif Ristrop, Courant Institute of Mathematical Sciences

**V0027: Reconfiguring it out: how flexible structures interact with fluid flows**
- Mudhula Baskaran, Ecole Polytechnique Fédérale de Lausanne
- Louis Hulin, Ecole Polytechnique Fédérale de Lausanne
- Karen Mulleners, Ecole Polytechnique Fédérale de Lausanne

---

This is the motivating force behind the Stories of Women in Fluids (WiF) Initiative. Our volunteer effort started within the Women in Fluids Networking group, a grass-roots networking movement that started as an off-site lunch at the 2010 meeting of the American Physical Society – Division of Fluid Dynamics (APS DFD). Spearheaded by Aline Cotet, Diane Foster, Ann Karagozian, Philip Marcus, Elaine Oran, Alexandra Techet, and Minami Yoda, it grew into an official APS DFD event at the November meeting in 2017.

We seek to provide a written guidepost for mentorship and to inspire girls and women alike to pursue successful careers in fluid dynamics. Currently at 40+ members ranging in experience from graduate students to faculty, we are a growing and evolving initiative looking for new members and additional support within the DFD community.

Through sharing the stories of our research and our experiences, we aim to address many of the actions that the American Association of University Women identifies as closing the STEM gender gap, including emphasizing strong and visible women (especially women of color), providing positive messages, and working to attract and retain women in fluid dynamics (https://www.aauw.org/resources/policy/position-stem-ed/).

Our current projects are two concurrent and separate anthologies, targeting two different audiences. The first anthology, with the working title “The Story of a Girl who was Curious about Fluid Dynamics,” intends to encourage and inspire female-identifying middle graders (ages 8‒12) to pursue a career in fluid dynamics through science storytelling. Each chapter, written by a member of the WiF Initiative, is a piece of science nonfiction through the narrative of their personal experience as a scientist. By speaking directly to girls about our science and our experiences as they develop an understanding of themselves in society, we hope to grow the number of women in fluid dynamics and STEM fields more broadly.

The second anthology, with the working title “Women in Fluids: Persevere, Survive and Thrive,” intends to encourage and support young female professionals as they enter and pursue a career in fluid dynamics by sharing each author’s career evolution stories and takeaways. This anthology will also include context of the evolution of women in fluid dynamics as a whole and will act as a resource for those wanting to serve as allies. As our contributing authors span the spectrum of career evolution, early-, mid-, and late-stage career professionals will also find valuable advice and validation of their personal experiences. Thus, the goal is to encourage retention and career development of women in fluids by speaking to and investing in women as they continue through their career journeys in the field of fluid dynamics and STEM fields more broadly.

We recently teamed up with Cosmic Writers, a 501(c)(3) nonprofit organization that specializes in writing workshops and publishing consulting for K‒12 audiences. Cosmic Writers will provide training for our contributing authors as they learn to write about their experiences and their science in distinctly different ways. As an emerging organization, we have benefited from support through the APS FOEP Mini Grant, which provided us with the funds for the Cosmic Writers training webinars. We have also benefited from an anonymous donation from a “Friend of the Women in Fluids,” who has supported us to continue working with Cosmic Writers through the developmental editing stages.

The immediate objectives of the Leadership Committee of the Stories of Women in Fluids Initiative are to raise funds and awareness to move the anthologies forward towards publication. If you have any questions, would like to find a way to support this initiative, or would like to join the WiF Stories Initiative to hear updates on our efforts and potentially join as a contributing author in a future anthology, email wif.stories.initiative@gmail.com.

The members of the Leadership Committee of the Stories of Women in Fluids are Kelli Hendrickson Sc.D., Roni Goldshmidt Ph.D., Swathi Krishna Ph.D., Beverley McKeon Ph.D., and Nicole Xu Ph.D.

1 The definition of woman and girl throughout this article is inclusive to any femme-leaning individual.
## APS/DFD 2022–2023 Leadership

### Executive Committee Members

**Chair:**
Anne Juel  
University of Manchester

**Chair-Elect:**
Anette E. Hosoi  
Massachusetts Institute of Technology

**Vice Chair:**
Jonathan Ben Freund  
University of Illinois at Urbana-Champaign

**Past Chair:**
Detlef Lohse  
University of Twente

**Secretary/Treasurer:**
Daniel Joseph Bodony  
University of Illinois at Urbana-Champaign

**Councilor:**
Howard A. Stone  
Princeton University

**Member-at-Large:**
Arezoo M. Ardekani  
Purdue University

**Member-at-Large:**
Roberto Zenit  
Brown University

**Member-at-Large:**
Denis F. Gayme  
Johns Hopkins University

**Member-at-Large:**
Timothy E. Colonius  
Caltech

**Member-at-Large:**
Lisa Fauci  
Tulane University

**Member-at-Large:**
Jacqueline Chen  
Sandia National Laboratories

**Early Career Member-at-Large:**
Ali Reza Hooshanginejad  
Brown University

### Nominating Committee

**Chair:** Eckart Meiburg  
**Vice-Chair:** Andrea Prosperetti

Klaas van Heijst  
Arvind Bhushan  
Gary Doolen  
Anna Norell  
Sven Kollmann  
Teresa-Ann Saxton-Fox  
Belinda Mak  
Steven L. Childress  
Zhiyong Lu  
Francisco Canales

**Executive Committee Members**

**Past Chair:**
Ashley Halasz  
University of Illinois at Urbana-Champaign

**Secretary/Treasurer:**
Daniel Joseph Bodony  
University of Illinois at Urbana-Champaign

**Councilor:**
Howard A. Stone  
Princeton University

**Member-at-Large:**
Arezoo M. Ardekani  
Purdue University

**Member-at-Large:**
Roberto Zenit  
Brown University

**Member-at-Large:**
Denis F. Gayme  
Johns Hopkins University

**Member-at-Large:**
Timothy E. Colonius  
Caltech

**Member-at-Large:**
Lisa Fauci  
Tulane University

**Member-at-Large:**
Jacqueline Chen  
Sandia National Laboratories

**Early Career Member-at-Large:**
Ali Reza Hooshanginejad  
Brown University

### Program Committee

**Chair:** Peko Hosoi  
**Vice-Chair:** Jon Freund

**MM Liaison:** Emmanuel Villermaux

**LOC ’23:**
Ken Kiger & Michael Plesniak  
Paul Krueger  
Luciano Castillo  
Randy Ewoldt  
Gianluca Iaccarino  
Tom Peacock  
Kathy Pretride  
Sarah Waters

**LOC ’24:**
Paul Krueger  
Luciano Castillo  
Randy Ewoldt  
Gianluca Iaccarino  
Tom Peacock  
Kathy Pretride  
Sarah Waters

### Diversity & Inclusion Committee

**Chair:** Teresa Ann Saxton-Fox  
**Vice-Chair:** Rodolfo Ostilla Mónico

Margaret Byron  
Felippol Coletti  
Satish Kumar  
Laura Villaflane Roca  
Thomas Ward  
Ke-Quing Xia  
Yuan Nan Young

### Educational and Career Outreach Committee

**Chair:** Rui Ni  
**Vice-Chair:** Alban Sauret

Lou Kondic  
Sungyong Lee  
Varghese Mathai  
Draga Pihler-Puzovic

### Media and Science Relations Committee

**Chair:** Alvaro Marin  
**Vice-Chair:** P-T Brun

### Ex-Officio Gallery of Fluid Motion Maintenance

**Azar Eshlam Panah:**  
**Jesse Capecehtaro:**  
**Brian Elbing:**  
**Andres Jared Goza:**  
**Megan Leftwich:**  
**Nitesh Nama:**

### Fellowship Committee

**Chair:** Jonathan Freund  
**Vice-Chair:** Peko Hosoi

**Ex-Officio Gallery of Fluid Motion Maintenance:**
Azar Eshlam Panah  
Jesse Capecehtaro  
Brian Elbing  
Andres Jared Goza  
Megan Leftwich  
Nitesh Nama

### Fluid Dynamics Prize Committee

**Chair:** Claudia Cenedese  
**Vice-Chair:** Mike Graham

**2022 Award Winner:**
Elisabeth Charlaix  
Lucia Biferale  
Isabelle Cantat  
Bud Homys  
Christine Hrenya  
Keith Julien  
Sutauan Sarkar

### Corrsin Award Committee

**Chair:** Elizabeth Guazzelli  
**Vice-Chair:** David Saintilan

**2022 Award Winners:**
Roberto Verzicco & Rajat Mittal  
Arezoo Ardekani  
Emilie Dressaire  
Matthew Juniper  
Alison Marsden  
Alfredo Soldati

### Acrivos Award Committee

**Chair:** Amy Shen  
**Vice-Chair:** Luc Deike

Camillle Duprat  
Federico Toschi  
Aaron Towne  
Peichun Amy Tsai  
Natalie Vriend

### Frenkiel Award Committee

**Chair:** Leif Ristroph  
**Vice-Chair:** Rodney Fox

**2022 Award Winner:**
Sebastien Michelin  
Chao Sun  
Osman Basaran  
Irmgard Bischofberger  
Filippe Coletti  
Elise Lorenceau

### External Affairs Committee

**Chair:** Daniel Chung  
**Vice-Chair:** Jeff Eldredge

Morris Flynn  
Pirouz Kavehpour  
Douglas Kelley  
Monica Martinez  
Konrad Rykaczewski  
James Sprittles

### Ad Hoc Committee on Format of November 2023 Meeting

**Chair:** Peko Hosoi  
**Vice-Chair:** Daniel Bodony  
**Past Chair:** Jon Freund  
**Committee Members:**
Elizabeth Guazzelli  
Peggy Holland  
Anne Juel  
Ken Kiger  
Ho-Young Kim  
Detlef Lohse  
Monica Malouf  
Michael Plesniak

DFD members are invited to contact the DFD Leadership with suggestions and concerns.