Greetings All

To say that we have something a little different planned for this year’s DFD meeting would be a massive understatement. The team and I have set aside our disappointment about not hosting you in Chicago, and we have scrambled as best we can to stand up a virtual substitute.

With all the uncertainty and the limited time, there was never a plan to virtually replicate in full our typical in-person meeting. Even estimating participation was hard! So we have rapidly stood up a scalable, low-cost ($75 registration), interactive and engaging experience.

We are eager to “see” you there, to see new contributions to fluid mechanics, and to take away some lessons learned about how to stay in touch in these turbulent times. We hope the low cost will allow the broadest possible participation.

Jonathan Freund,  
University of Illinois
The 2020 APS-DFD meeting will be held virtually from November 22-24, 2020 with live-streamed parallel tracks of invited talks and award lectures which will be recorded and made available on-demand for the rest of the meeting period. In addition, submitted abstracts will be presented asynchronously, supported with author-provided supplemental materials, also available all three days, with opportunities for text-based and virtual face-to-face interactive Q&A. The three days of the meeting will include on-line networking events, the Gallery of Fluid Motion, and exhibitor advertising and promotions; details will be updated as they become available on the meeting website.

**Registration**
The cost of the online meeting will be a small fraction of that of the travel, lodging, and registration for the usual in-person meeting. The fee will offset the costs of the virtual meeting and with this low rate, there will not be a distinction between student and non-student registration rates. To register go to: dfd2020chicago.org/registration/

**APS Member Registration**
$75 EARLY RATE  
$125 (after Oct 31, 2020)

**Non-member Registration**
$260 EARLY RATE  
$310 (after Oct 31, 2020)

**Key Dates**
**Meeting Registration Deadlines**
Registration is Now Open  
Early registration deadline: October 31, 2020

**Gallery of Fluid Motion Dates**
Gallery of Fluid Motion Poster and Video Upload  
Submission: October 12, 11:59 pm EDT

**Scientific Program**
For 2020, the scientific program will include four award lectures, along with twelve invited lectures, and four minisymposia sessions. Each year the APS Division of Fluid Dynamics awards the Fluid Dynamics Prize, the Francois N. Frenkiel Award, the Andreas Acrivos Dissertation Award, and the Stanley Corrsin Award. Each of these will present a scheduled streamed lecture on Sunday and Monday. These will be moderated by a chair, and will be available on-demand for the remainder of the meeting. Additionally, the 2020 Fellowships will be awarded.

**Awards Presentations**
**Fluid Dynamics Prize**
Katepalli Sreenivasan, New York University  
*Flow in the Sun*

**Stanley Corrsin Award**
Emmanuel Villermaux, Aix-Marseille University  
*Quanta and their superposition rules in Fragmentation and Mixing*

**Andreas Acrivos Dissertation Award in Fluid Dynamics**
Michelle DiBenedetto, Stanford University  
*Transport and behavior of non-spherical particles in waves*

**Francois Frenkiel Award for Fluid Mechanics**
Matthew Butler, University of Oxford  
Finn Box, University of Manchester  
Thomas Robert, Ecole Normale Supérieure de Paris  
Dominic Vella, University of Oxford  
*Elasto-capillary adhesion: Effect of deformability on adhesion strength and detachment*

**Invited Presentations**
Lydia Bourouiba, MIT  
*The Fluid Dynamics of Disease Transmission*

Luciano Castillo, Purdue  
*On Fake Walls Along the USA/Mexico Border*

Randy Ewoldt, Univ. Illinois Urbana-Champaign  
*Designing complex fluids*

Guowei He, Chinese Academy of Sciences  
*Space-time energy spectra in turbulent flows*

Anne Juel, Univ. Manchester  
*Viscous fingering instabilities: from suppression to disorder*

Douglas Kelley, University of Rochester  
*Brain cerebrospinal fluid flow*

Heidi Nepf, MIT  
*Vegetation Hydrodynamics for Climate Mitigation and Adaptation*

Daniel Price, Monash University  
*MythBusters: Smoothed Particle Hydrodynamics in astrophysics and engineering*

Suzie Protière, CNRS  
*The Mechanics of Capillary Assemblies*

Olga Shishkina, Max Planck Institute  
*Boundary zonal flows in rotating Rayleigh-Bénard convection and other turbulent convective superstructures*
Jean-Luc Thiffeault, Univ. Wisconsin
*Stirring by microswimmers and their interaction with boundaries*

Tamer Zaki, Johns Hopkins
*From limited observations to the state of turbulence: Fundamental difficulties of flow reconstruction*

**Minisymposia**
Eric Lauga, University of Cambridge
Emmanuel Villermaux, Aix Marseille Université
*PR Fluids/Fluids Next: Fluid mechanics of infectious diseases*

Jonathan Naughton, University of Wyoming
Charles Meneveau, Johns Hopkins University
*Wind Energy Fluid Mechanics*

Raymond Shaw, Michigan Tech. University
*PR Fluids/Fluids Next: Fluid Dynamics of Atmospheric Clouds*

Endre Mossige, University of California, Santa Barbara
*Kitchen flows*

**Focus Sessions**
George Karniadakis, Brown University
Gianluca Iaccarino, Stanford University
*Deep Learning in Experimental and Computational Fluid Mechanics*

Ivan Christov, Purdue University
Amy Marconnet, Purdue University
*Understanding Thermal Transport in Flows of Dense Suspensions*

Yuan-Nan Young, New Jersey Inst. of Technology
*Fluid Dynamics in a Deformable Porous Medium*

**Submitted Abstracts**
The usual 1300-character APS abstracts will be available for all three meeting days along with flexible supplemental on-demand material uploaded by the authors. The uploaded material will be posters, presentation slides, recorded lectures, or whatever is deemed most appropriate for the work being presented. Text-based Q&A will be available, opportunities to talk virtually face-to-virtual-face, and authors will be encouraged to monitor questions about their work. Abstracts will be organized topically, similar to past meetings.

**Gallery of Fluid Motion**
The 39th Annual Gallery of Fluid Motion will be held as part of the meeting and will be a series of high-resolution videos and posters that can be watched or viewed throughout the conference with an active text-based Q&A chat box. The Gallery consists of posters or videos submitted by the community 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 and will be displayed at the Annual APS meeting in March, 2021 and will appear in the September 2021 issue of the *Physical Review Fluids*.

For inquiries or issues email dfd2020gfm@nd.edu. **Be sure to designate whether you are writing about a GFM Poster OR GFM Video in the Subject line.**

**2020 APS DFD Events**
Multiple information and networking virtual events are being planned for participants.

**Note:** some require registration upon registering for the meeting by October 31. The event organizers will then be in touch by email with additional details.

**Women in Fluids Networking “Lunch”**
Networking lunch for female students, postdoctoral researchers, faculty and professionals

**Organizers:**
Petia Vlahovska, Northwestern University
petia.vlahovska@northwestern.edu
Michelle Driscoll, Northwestern University
michelle.driscoll@northwestern.edu

**Student “Lunch”** (Registration Required)
The student lunch gives an opportunity for undergraduate and graduate students to interact with an expert in fluid dynamics, in a relatively informal setting. DFD2020 will feature a virtual student lunch via videoconferencing. To accommodate participants in different time zones, the student lunch will be divided across multiple timeslots (lunch, breakfast, dinner). Students will be able to sign up for lunch when they register for the conference, with space limited.

**Organizer:** Scott Dawson, Illinois Institute of Technology
sdawson5@iit.edu

**Underrepresented Minorities in Research “Breakfast”** (Registration Required)
An opportunity for fluid mechanics researchers from underrepresented minority groups to build community, network with others, and create a platform for mentoring.

**Organizers:**
Luciano Castillo, Purdue University
lcastillo@purdue.edu
Sean Garrick, University of Illinois Urbana-Champaign
sgarrick@illinois.edu
Young Investigators Workshop (Registration Required)
Program directors from governmental agencies will lead a Q&A session on their funding awards programs for early-career researchers. To attend this free workshop, attendees must be registered for the DFD meeting and be eligible for at least one early-career award. Attendees are required to sign up in advance during registration. Questions will be available during the live session and in advance once registration is completed. Eligibility requirements and additional information on the CAREER Program and the Young Investigator Programs can be found at NSF-CAREER and YIP-ONR, respectively.

Organizers:
Ken Christensen, Notre Dame
ken.christensen.33@nd.edu
Jon MacArt, Notre Dame
jmacart@nd.edu

Tutorial for Authors and Referees (PR Fluids)
(Registration NOT Required)
Publication is an essential part of scholarly research and integral to most scientists’ careers. A good understanding of the authoring and reviewing processes will help authors navigate their way to a published manuscript. In this tutorial, editors from Physical Review Letters and Physical Review will provide advice on topics such as how to write a good paper, how best to respond to reviews, and how to write informative referee reports.

Organizers:
Brad Rubin
American Physical Society
rubin@aps.org

Networking Opportunities and Exhibits
Exhibits and banner displays will be incorporated into the meeting platform as well as other networking opportunities.

Please contact Monica Malouf for more information:
monica@Meetingsandmore.net

Key Contacts
Meeting Chair
Jonathan Freund
University of Illinois at Urbana-Champaign
dfd2020meeting@illinois.edu

Program Chair
Randy Ewoldt
University of Illinois at Urbana-Champaign
dfd2020meeting@illinois.edu

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

Future APS/DFD Meetings
2021: Phoenix, AZ
Marcus Herrmann, Meeting Chair
Arizona State University

2022: Indianapolis, IN
Luciano Castillo, Meeting Chair
Purdue University

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

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

Newly Elected Executive Committee Members

The following are the newly elected members of the DFD Executive Committee. Their terms will begin immediately after the close of the 2020 APS DFD meeting.

Member-at-Large
Arezoo Ardekani
Purdue University

Vice-Chair
Detlef Lohse, Univ. of Twente
Obituary
Paul Steen
Paul H. Steen, the Maxwell M. Upson Professor of Engineering at Cornell University, died of a heart attack on Sept. 4, 2020. He was born on June 22, 1952, grew up in Meadville, PA, and received an ScB in Engineering and an AB in English Literature at Brown University. He then earned his PhD in Fluid Dynamics at Johns Hopkins and was a postdoctoral researcher at Stanford, working with Steve Davis and Bud Homsy, respectively. While completing his dissertation, he restored a 1959 Mercedes Benz 190SL, and drove it to California when he moved to Stanford. He joined Cornell’s School of Chemical Engineering in 1982.

Paul was very active in the DFD community, a Fellow of the APS, a journal editor, and an internationally recognized scholar. His work was characterized by creativity, elegance, and depth, and an undercurrent of all his efforts was a determination to develop simplified mathematical descriptions that elegantly captured the essence of complex nonlinear flow phenomena.

Paul’s early work focused on coupled oscillators and pattern selection in thermal convection. As an assistant professor, he turned to the area that would define his research career, the dynamics of interfaces and contact lines. He performed important experiments and analysis on liquid and soap-film bridges, and made some of the first systematic studies of the melt-spinning process used to produce thin films of amorphous materials. Paul’s group developed “switchable” liquid bridges, then integrated these into arrays to yield surfaces with tunable patterns of capillary adhesion. Very recently, Paul and his collaborators discovered a beautiful analogy between vibrational modes of droplets on substrates and the periodic table of the elements. Paul was also actively involved with a new company, InCaveo, which is developing “intelligent” drug packaging for controlled medications.

Paul was well-known for his sense of humor, personal warmth and cheerful nature. He was an outstanding mentor, always kind, supportive, and intellectually engaged. He was a von Humboldt fellow and spent a substantial amount of time in Germany over the years. Paul was a runner, hiker, and avid cyclist. He is survived by his wife Kyra D. Stephanoff and daughters Ana and Frances.

--Mike Graham
EXECUTIVE COMMITTEE
Chair:
Minami Yoda
(11/19 - 12/20)
Georgia Inst of Technology
Chair-Elect:
Shelley Lynn Anna
(11/19 - 12/20)
Carnegie Mellon University
Vice Chair:
John O Dabiri
(11/19 - 12/20)
Caltech
Past Chair:
Charles Meneveau
(11/19 - 12/20)
Johns Hopkins University
Secretary/Treasurer:
Jeffrey F Morris
(11/18 - 12/21)
The City College of New York
Councilor:
Howard A Stone
(11/19 - 12/22)
Princeton University
Member-at-Large:
David Saintillan
(11/17 - 12/20)
University of California, San Diego
Member-at-Large:
Sarah L Waters
(11/17 - 12/20)
University of Oxford
Member-at-Large:
Petia M Vlahovska
(11/18 - 12/21)
Northwestern University
Member-at-Large:
Emilie Dressaire
(11/18 - 12/21)
University of California, Santa Barbara
Member-at-Large:
Alison L Marsden
(11/19 - 12/22)
Stanford University
Member-at-Large:
Satish Kumar
(11/19 - 12/22)
University of Minnesota

NOMINATING COMMITTEE
8 members, staggered 2-year terms
Mike Plesniak, Chair (12/20)
Luca Biferale, Vice Chair (12/21)
Carlos Hidrovo (12/20)
Gareth McKinley (12/20)
Pavlos Vlachos (12/20)
Joanna Austin (12/21)
Anke Lindner (12/21)
Shu Takagi (12/21)

PROGRAM COMMITTEE
8 members, staggered 3-year terms + March Meeting liaison + 2 local organ. committee members
Shelley Anna, Chair (12/20)
John Dabiri, Vice Chair (12/20)
Dennice Gayme (12/20)
Jean Hertzberg (12/20)
Rui Ni (12/20)
Michael Brenner (12/21)
Marcus Herrmann (12/21)
David Richter (12/21)
Paulo Arratia, MM liaison (12/21)
Jon Freund, LOC ’20 (12/20)
Randy Ewoldt, LOC ’20 (12/20)

FELLOWSHIP COMMITTEE
8 fellows, staggered 2-year terms
John Dabiri, Chair (12/20)
Shelley Anna, Vice Chair (12/20)
Colm-ville Caulfield (12/20)
Fernando Grinstein (12/20)
Guowei He (12/20)
Paul Steen (12/20)
Jacqueline Chen (12/21)
Anne De Wit (12/21)

EXTERNAL AFFAIRS COMMITTEE
8 members, staggered 3-year terms
Satish Kumar, Co-Chair (12/21)
Hassan Masoud, Co-Chair (12/20)
Kiran Bhaganagar, Vice Chair (12/21)
Arvind Santhanakrishnan (12/20)
Arindam Banerjee (12/21)
Kirti Sahu (12/21)
Parisa Mirbod (12/22)

FLUID DYNAMICS PRIZE COMMITTEE
8 members, staggered 2-year terms, and award winner from previous cycle, 1-year term
Leslie Smith, Chair (12/20)
Thomas Corke, Vice Chair (12/21)
Ellen Longmire (12/20)
Rajat Mittal (12/20)
Todd Squires (12/20)
Lex Smits, 2019 Award Winner (12/20)
Lyderic Bocquet (12/21)
Yoshifumi Kimura (12/21)

CORRISIN AWARD COMMITTEE
7 members, staggered 2-year terms, and award winner from previous cycle, 1-year term
Roberto Verzicco, Chair (12/20)
Richard Lueptow, Vice Chair (12/21)
Paul Durbin (12/20)
Kausik Sarkar (12/20)
Jeff Morris, 2019 Award Winner (12/20)
Lisa Fauzi (12/21)
Hyung Jin Sung (12/21)
Lauretta Tuckerman (12/21)

ACRIVOS AWARD COMMITTEE
8 members, staggered 2-year terms
Daniel Bodony, Chair (12/20)
Tim Colonius, Vice Chair (12/21)
Klaus Bertin (12/20)
Irmgard Bischofberger (12/20)
Eric Lauga (12/20)
Duan Z. Zhang (12/20)
Jeff Morris, 2019 Award Winner (12/20)
Eric Lauga (12/20)

FRENKIEL AWARD COMMITTEE
7 members, staggered 2-year terms, and award winner from previous cycle, 1-year term
Lex Smits, 2019 Award Winner (12/20)
Linla, 2019 Award Winner (12/20)

DIVERSITY AND INCLUSION COMMITTEE
6 members, staggered 2-year terms
Megan Leftwich, Chair (12/20)
Keith Moored, Vice Chair (12/21)
Devesh Ranjan (12/20)
Adrian Sescu (12/20)
Andres Goza (12/21)
Kerstin Nordstrom (12/21)

OUTREACH COMMITTEE
7 members, staggered 3-year terms
Azar Eslam-Panah, Chair (12/20)
Any Jones, Vice Chair (12/22)
Pierou Kavehpour (12/20)
Ivan Marusic (12/20)
Maysam Mousavirida (12/20)
David Hu (12/21)
Mattia Gazzola (12/22)
Vivek Narasimhan (12/21)

GALLERY OF FLUID MOTION
Ken Kiger (ex-officio Gallery of Fluid Motion maintenance)

EDUCATIONAL & CAREER OUTREACH COMMITTEE
6 members, staggered 2-year terms
Raul Cal, Chair (12/21)
Luciano Castillo, Vice Chair (12/21)
Monica Martinez (12/20)
Thomas Ward (12/20)
Roberto Zenit (12/20)
Petia Vlahovska (12/20)
P. K. Yeung (12/21)
Melissa Green (12/22)

DIVERSITY AND INCLUSION RELATIONS COMMITTEE
7 members, staggered 3-year terms
Azar Eslam-Panah, Chair (12/20)
Any Jones, Vice Chair (12/22)
Pierou Kavehpour (12/20)
Ivan Marusic (12/20)
Maysam Mousavirida (12/20)
David Hu (12/21)
Mattia Gazzola (12/22)
Vivek Narasimhan (12/21)

GALLERY OF FLUID MOTION
Ken Kiger

MEDIA & SCIENCE RELATIONS COMMITTEE
7 members, staggered 3-year terms
Azar Eslam-Panah, Chair (12/20)
Any Jones, Vice Chair (12/22)
Pierou Kavehpour (12/20)
Ivan Marusic (12/20)
Maysam Mousavirida (12/20)
David Hu (12/21)
Mattia Gazzola (12/22)
Vivek Narasimhan (12/21)

GALLERY OF FLUID MOTION
Ken Kiger

APS REPRESENTATIVE ON US NATIONAL COMMITTEE FOR THEORETICAL AND APPLIED MECHANICS
Beverley McKeon

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