A Division of the American Physical Society

#### **DFD ANNUAL ELECTION**

Please vote online in the APS DFD election website and vote for one of two candidates (Juan Lasheras or Robert Behringer for DFD Vice Chair and two of four candidates for DFD Executive Committee Members-at-Large (Anette Hosoi, Manoochehr Koochesfahani, Laurette Tuckerman or Daniel Lathrop). The Vice Chair becomes the Chair-Elect the next year and then the DFD Chair the following year. The Members-at-Large serve for three year terms. You can easily access the election website (with a unique address for each current DFD member) with the link that was sent to you via email on or about September 24, 2007 from the Division (ellen@aem.umn.edu). Short biographical sketches of the candidates and their statements are included on the website. If you do not wish to vote electronically, you may do so with a paper ballot, but you must go to the web page to obtain one.

The extended deadline for voting is October 26, 2007.

Please vote online at the www.aps.org!

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### THE GOTH ANNUAL DFD MEETING

## SALT LAKE CITY, UTAH NOVEMBER 18-20, 2007

The 60th Annual DFD Meeting will be held at the Salt Palace Convention Center in Salt Lake City, UT. The convention center provides significant space for technical sessions, invited talks, exhibits, breaks, and the Gallery of Fluid Motion, and is walking distance from numerous hotels and attractions (Temples Square, Abravinal Hall, Clark Planetarium). Salt Lake City was host to

the 5th DFD meeting in 1952, is a popular tourist destination, and known for it's mountains and natural beauty. Salt Lake was the host of the 2002 winter Olympics and is a 45 minute drive from seven different ski areas, the closest being only 25 minutes away. Mid November usually marks the beginning of the ski season and attendees may wish to extend their stay for early season skiing on the "greatest snow on earth!"

Conference Website: http://dfd2007.eng.utah.edu

#### **Hotel Reservations**

The main conference Hotel is the Salt Lake City Downtown Marriott, directly across the street from the main entrance to the convention center. Rooms are also reserved at a special conference rate at the Salt Lake Plaza Inn, also across the street from the convention center, and the Radisson, which is adjacent to the convention center. For reservations, go to the "Venue" section of the meeting website at: http://dfd2007.eng.utah.edu/venue.htm

Hotel rates are:

**Downtown Marriott Hotel** \$129.00 + Tax, single/double/triple/quad

Radisson Hotel \$109.00 + Tax, single/double \$119.00 + Tax, triple \$129 + Tax, quad

The Salt Lake Plaza Hotel \$92.00 + Tax, single/double/triple/quad

Registration includes all sessions, coffee breaks, one set of conference materials, and one ticket to Sunday's reception at the Convention Center. Registration fees are \$320 for members (\$380 late), 545 for nonmembers (\$600 late), and \$150 for graduate students (ID required) and retired members (\$175 late). Extra tickets for Sunday's reception are \$75. Late registration fees apply after October 22.

Meeting registration can be done online or by faxing in a registration form. Both the online reservation and the reservation form are available at:

https://www.registerat.com/dyn/apsdfd2007/Splash.aspx

After November 12, 2007 only on-site registration will be accepted. The registration desk will be open Saturday, November 17, 2007 at 6:00 pm in the convention center where you will be able to pick up your badge and Bulletin if you have pre-registered, or register on-site if you have not done so.

#### **Scientific Program**

This year's scientific program, which begins at 8:30 AM on Sunday, will include three award lectures, eight invited lectures, five minisymposia, contributed papers, a poster session, exhibits, and the Gallery of Fluid Motion. The invited lectures are selected to illustrate the richness of topics, techniques, and application inherent in the study of fluid dynamics. More than 1400 contributed abstracts, divided into 20 concurrent sessions, will be presented.

#### **Awards Program**

Each year the APS Division of Fluid Dynamics presents several awards: the Fluid Dynamics Prize, the Francois Frenkiel Award, and the Andreas Acrivos Dissertation Award. A lecture by each award winner will be given at the meeting.

#### Minisymposia

- 1. Incorporating Biology in a Fluids Curriculum Organized by Eric Lauga, MIT
- 2. Lagrangian Dynamics in Turbulence
  Organized by Lance Collins, Cornell University
- 3. Fluids Demonstrations and Instructional Laboratories

Organized by Jean Hertzberg, University of Colorado and Douglas Bohl, Clarkson University

- 4. Turbulence Simulations and Advanced Cyberinfrastructure

  Organized by P.K. Yeung, Georgia Tech
- 5. Deformable Particle Suspensions and Solutions Organized by Dewei Qi, Western Michigan University

#### **Gallery of Fluid Motion**

The 25th Annual Gallery of Fluid Motion will be held as part of the meeting. The gallery consists of aesthetically

pleasing, insightful displays of photographs, computer images, and video clips submitted by attendees of the meeting. Both poster and video entries will be available for viewing in the exhibit hall throughout the meeting, with a special viewing lounge to be set up for the video entries.

In an effort to further education in fluid mechanics, a new video category, **Educational Videos**, has been added this year. Educational videos should be self contained videos that demonstrate fluid mechanics concepts and can be used for either classroom or individual instruction.

All Gallery of Fluid Motion entry forms and videos must be submitted through the conference website. Complete information on format and submission requirements can be found on the meeting website:

http://dfd2007.eng.utah.edu/gallery.htm

#### **Special Events**

#### NSF CAREER Workshop

#### Sunday, November 18 12:40 PM-1:40PM

William Schultz of NSF will lead a luncheon discussion on NSF Faculty Early Career Development (CAREER) Program at the 60th Annual DFD meeting. The discussion will take place over a luncheon (free to participants) on Sunday, Nov. 18. To attend the workshop/lunch attendees must be registered for the conference and be eligible for NSF CAREER awards. For information on the program and eligibility requirements go to:

http://www.nsf.gov/pubs/2005/nsf05579/nsf05579.htm

Space will be limited and reservations will be given out on a first-come, first-served basis. To request a reservation for this workshop, e-mail Patrick McMurtry at mcmurtry@eng.utah.edu. Include your current position and title, tenure status, and date of doctoral degree and tenure track appointment.

#### **Student Luncheon**

#### Monday, November 18 12:40 PM-1:40 PM

Students attending the 2007 Annual Meeting will have the opportunity to participate in informal discussions over lunch with an expert on a topic of interest. Students should sign up for the luncheon at the registration desk. The event is free but tickets will be given out on a first-come, first-served basis as space is limited.

#### **Audio Visual 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. Overhead projectors will not generally be available. Presenters

wishing to use an overhead projector must contact the meeting organizers (mcmurtry@eng.utah.edu) by October 15, 2007 to ensure one will be available at their session. A Speaker Ready Room will be available to run through the presentation beforehand to ensure that it works smoothly with the LCD projection equipment.

#### **Conference Reception**

The Conference Reception will be held Sunday evening in the South Foyer of the Salt Palace Convention Center. Subject to weather and city permitting requirements, an exciting outdoor fluids demonstration is being planned.

#### **Exhibitors**

Do not miss the opportunity to reach over 1600 attendees of the APS/DFD Annual Meeting! For more information on exhibits or sponsorship contact Meetings and More, mtgs911@aol.com

#### **Deadlines**

#### **Past Due**

**Abstract Submission** 

#### **Past Due**

Gallery of Fluid Motion Poster Entry Forms

#### **Past Due**

Video Entries to Gallery of Fluid Motion

#### **Past Due**

Hotel Reservations (Reduced Rate)

#### **Past Due**

Early Registration

#### **November 12, 2007**

Preregistration Cancellation

#### **Meeting Hosts**

The meeting is being hosted by the University of Utah, Utah State University, Brigham Young University, and Idaho State University

#### **Program Organizers**

Patrick McMurtry, Lead Organizer
Department of Mechanical Engineering *University of Utah*Email: mcmurtry@eng.utah.edu

General Meeting and Exhibiting Information Meetings and More

Phone: (301) 641-4150 Fax; (301) 320-2155 Email: mtgs911@aol.com

#### **Invited Lectures**

"Entomological Fluid Dynamics"
John Bush, MIT

"Flow of Dense Granular Media; A Peculiar Liquid"
Olivier Pouliquen, Université de Provence-CNRS

"Twenty Years of Experimental and DNS Access to the Velocity Gradient Tensor: What We Have Learned About Turbulence."

James Wallace, University of Maryland

"The Collective Hydrodynamics of Swimming Micro-Organisms"

Timothy Pedley, University of Cambridge

"Insect Flight: Aerodynamics, Efficiency and Evolution"

Jane Wang, Cornell University

"Morphodynamics of Rivers and Turbidity Currents: an Elegant Conversation between Water and Sediment"

Gary Parker, University of Illinois Urbana-Champaign

"Making Shock Waves in Microfluidics: The Physics and Applications of Isotachophoresis" Juan G. Santiago, Stanford University

"Particles and Vortices in Superfluids"

K.R. Sreenivasan, International Centre for Theoretical Physics, Trieste, Italy

#### 2008 DFD Meeting, San Antonio, Texas

Contact Sharath Girimaji, Texas A&M University

# RECIPIENTS OF PRIZES AND AWARDS

Each year the APS Division of Fluid Dynamics recognizes outstanding individuals with several awards: the Fluid Dynamics Prize, The Francois Frenkiel Award, and the Andreas Acrivos Dissertation Award.

#### 2007 Fluid Dynamics Prize

The Fluid Dynamics prize winner for 2007 is Guenter Ahlers, from the University of California at Santa Barbara. This award is presented each year to a member of the DFD who has made outstanding contributions to fundamental fluid dynamics research. The citation for

this year's Fluid Dynamics prize winner is: "For pioneering experimental work on fluid instabilities, low-dimensional chaos, pattern formation, and turbulent Rayleigh-Benard convection". Professor Ahlers will present the 2007 Otto Laporte Lecture at the 2007 Annual meeting of the Division of Fluid Dynamics in Salt Lake City, Utah. The lecture given by the Fluid Dynamics Prize recipient is called the Otto Laporte Lecture.

A list of the Otto Laporte Award recipients and lecturers, a list of Fluid Dynamics Prize recipients, and additional information about this Prize and Award and other prizes and awards are available at the end of this newsletter and on the DFD Prizes and Awards web page at: http://www.aps.org/units/dfd/awards/index.cfm

#### 2007 Frenkiel Award

The 2007 Frenkiel Award winner is Re'em Sari from Caltech. This award recognizes a significant contribution to fluid mechanics that has been published in Physics of Fluid during the preceding year by a young investigator. The award paper is titled, "First and second type self-similar solutions of implosions and explosions containing ultrarelativistic shocks". Phys. Fluids 18, 027106 (2006). His citation is, "For the elegant derivation of similarity solutions describing the propagation of ultrarelativistic shock waves".

#### 2007 Acrivos Award

The 2007 Acrivos award winner is David Saintillan, who performed his Ph.D. research at Stanford University under the joint supervision of Eric Shaqfeh and Eric Darve. His thesis is entitled, "Collective dynamics in dispersions of anisotropic and deformable particles." The award recognizes an exceptional young scientist for original, outstanding doctoral thesis work in fluid dynamics done in the United States.

#### 2007 APS/DFD Fellows

The Fellowship Committee of DFD is pleased to announce the election of the following APS Fellows. Each Fellow will be presented with certificates with the following citations at the 2007 DFD Meeting in Salt Lake City.

#### **Lance Collins**

For new physical understandings of the dynamics of aerosol particles, droplets, polymer molecules, and reacting gases in turbulence through novel direct numerical simulations and insightful theories.

#### **Rodney Fox**

For ground-breaking contributions to the field of turbulent reacting flows.

#### **Sharath Girimaji**

For important contributions to the fundamental understanding of elementary turbulence processes; and, based on this improved knowledge, for the development of widely-used engineering closure models for turbulence and turbulent mixing.

#### **Peyman Givi**

For pioneering computational research on turbulent reactive flows, and especially for the development of the filtered density function methodology.

#### **Mark Glauser**

For his innovative use of multi-point low-dimensional methods to elucidate key physics associated with time dependent flow phenomena for flow control applications in turbulent jets, shear layers and separated flows.

#### **Ari Glezer**

For in-depth insight into flow structure through innovative experiments, and the creation of fundamentally new approaches to flow control, leading to the dramatic alteration of the underlying physics.

#### Yoshifumi Kimura

For contributions to the development of our understanding of turbulent flows and the dispersion of scalars in a variety of geophysical settings through the numerical simulations and a comparison of these to theory and experiment.

#### **Robert Krasny**

For his many achievements in advancing particle methods and tree-code algorithms to allow exceptionally precise computations of vortex dynamics, and his insightful use of the resulting methods to increase the fundamental understanding of regular and chaotic phenomena in fluid flows.

#### **Ellen Longmire**

For innovative experiments in turbulent and particle-laden flows, and the development of new and improved flow diagnostic techniques.

#### **Gareth McKinley**

For the development of methods for characterization of the rheology of complex liquids and improved understanding of elastic effects and instabilities.

#### **Michael Shelley**

For his broad-ranging contributions to computational fluid mechanics, including boundary integral techniques for interface dynamics, singularity formation in topological transitions, and fluid-body interactions.

#### **Pushpendra Singh**

For outstanding contributions to the development of efficient algorithms for the direct numerical simulations (DNS) of multiphase fluids, and for using the DNS technique in conjunction with experiments as a tool for understanding the physics of a broad range of multiphase systems.

#### **Stavros Tavoularis**

For contributions to turbulence, turbulent mixing, vortex dynamics, aerodynamics, thermo-hydraulics, bio-fluid dynamics, and design of flow apparatus and instrumentation. Also, for contributions to education in fluid dynamics and for promoting international collaboration and understanding.

#### **March APS Meeting**

In recent years, there has been increased interest in fluid dynamics at the March APS meeting. The next March meeting will be in New Orleans, March 10-14, 2008. See http://www.aps.org/meetings/march/index.cfm for details. At this meeting, the DFD Program Chair is Lex Smits, and our Division has organized two invited sessions:

#### 1. "Fluid Dynamics and Biology"

Organized by Ray Goldstein of DAMTP This session will be held Wednesday morning 8:00 to 11:00 am, March 12, 2008. There is no conflict with any DBP invited session.

"The Physics of Climate and Climate Change"
 Organized by John Wettlaufer of Yale
 This session will be held Tuesday afternoon 2:30 to
 5:30 pm, March 11, 2008.

The deadline for abstracts for contributed talks for the March meeting is November 27, 2007.

## Metropolis Dissertation Award Nominations

The Division of Computational Physics of the APS requests nominations for the Nicholas Metropolis Award for Outstanding Doctotal Thesis Work in Computational Physics. The purpose of the award is to recognize doctoral thesis research of outstanding quality and achievement in computational physics and to encourage effective written and oral presentation of research results. The award consists of \$1,500 and a certificate to be presented at an awards ceremony at the Division of Computational Physics annual meeting and an additional allowance of up to \$500 to travel to the meeting. The recipient will be invited to present his or her work in an appropriate session of the meeting. The deadline for submission of nominations for the 2008 prize has been extended to November 1, 2007. Five (5) copies of nominations and supporting documentation for the 2008 Prize should be sent to the Chair of the 2008 Selection Committee. See http://www.aps.org/programs/honors/dissertation/ metropolis.cfm for details.

## **Past Recipients of Prizes and Awards**

Fluid Dynamics Prize					
2006	Thomas S. Lundgren	1992	William R. Sears		
2005	Ronald J. Adrian	1991	Andreas Acrivos		
2004	George M. (Bud) Homsy	1990	John L. Lumley		
2003	Jerry Gollub	1989	William W. Willmarth		
2002	Gary Leal	1988	Galen B. Schubauer		
2001	Howard Brenner	1987	Anatol Roshko		
2000	Friedrich Hermann Busse	1986	Robert T. Jones		
1999	Daniel D. Joseph	1985	Chia-Shun Yih		
1998	Fazle Hussain	1984	George Carrier		
1997	Louis Norberg Howard	1983	Stanley Corrsin		
1996	Parviz Moin	1982	Howard W. Emmons		
1995	Harry L. Swinney	1981	Philip S. Klebanoff		
1994	Stephen H. Davis	1980	Hans Wolfgang Liepmann		
1993	Theodore Yao-tsu Wu	1979	Chia Chiao Lin		

Otto Laporte Award					
2003	Norman J. Zabusky	1987	J. Trevor Stuart		
2002	Andrea Prosperetti	1986	Milton Van Dyke		
2001	John Kim	1985	Hans W. Liepmann		
2000	Hassan Aref	1984	Sir James Lighthill		
1999	Eli Reshotko	1983	John W. Miles		
1998	David G. Crighton	1982	Peter Wegener		
1997	Marvin Emanuel Goldstein	1981	H. W. Emmons		
1996	Donald Coles	1980	R. Byron Bird		
1995	Katepalli R. Sreenivasan	1979	Stanley Corrsin		
1994	Philip G. Saffman	1978	Cecil E. Leith, Jr.		
1993	Robert Kraichnan	1977	Y. C. Fung		
1992	William C. Reynolds	1976	George F. Carrier		
1991	Steven A. Orszag	1975	Russell J. Donnelly		
1990	Tony Maxworthy	1974	J. M. Burgers		
1989	Chia-Shun Yih	1973	Chia C. Lin		
1988	Akiva M. Yaglom	1972	Richard G. Fowler		

## **Past Recipients of Prizes and Awards**

Francois Frenkiel Award for Fluid Mechanics					
2006	J. Skotheim L. Mahadevan	1994	Jeffery W. Jacobs		
2005	Roberto Verzicco	1993	David G. Dritschel Darryn W. Waugh		
2004	Michael D. Graham	1992	Kathleen J. Stebe Shi-Yow Lin Charles Maldarelli		
2003	Maxime Nicolas	1991	Hsueh-Chia Chang Minquan Q. cheng		
2002	Johnathan Rothstein Gareth H. McKinley	1990	Juan C. Lasheras Benigno J. Lázaro		
2001	Stefano Cerutti Charles Meneveau	1989	Eric S. G. Shaqfeq		
2000	Michael P. Brenner	1988	Donald Lyle Koch		
1999	Anne D. Dussaud Sandra Marina Troian	1987	Saleh Tanveer		
1998	Thomas Yizhao Hou John Lowengrub Michael Shelley	1986	Sanjiva K. Lele		
1997	Krishnan Mahesh	1985	John C. Neu		
1996	Rajat Mittal Sivaramakrishnan Balachandar	1984	Eric Herbolzheimer		
1995	Gregory Eyink				

Andreas Acrivos Dissertation Award in Fluid Dynamics					
2006	Eric Lauga	2002	Wade Schoppa		
2005	Silas D. Alben	2001	Greg A. Voth		
2004	Jacqueline Ashmore	2000	Vittorio Cristini		
2003	Prosenjit Bagchi				

### APS/DFD 2007 LEADERSHIP & CONTACT INFORMATION

DFD MEMBERS ARE INVITED TO CONTACT THE DFD LEADERSHIP WITH SUGGESTIONS AND CONCERNS.

#### **EXECUTIVE COMMITTEE**

Chair

Steve Pope (11/08)

**Chair-Elect** 

Lex Smits (11/09)

Vice-Chair

Philip Marcus (11/10)

Past-chair

Howard Stone (11/07)

Secretary/Treasurer

(3 year term)

Ellen Longmire (11/10)

**Division Councillor** 

(4 year term)

James Brasseur (12/10)

**Members-at-Large** 

(3 years terms with election of 2 new members every

year)

Werner Dahm (11/07)

Sandra Troian (11/07)

Paul Steen (11/08)

Minami Yoda (11/08)

Jean Hertzberg (11/09) Martin Maxey (11/09)

NOMINATING

COMMITTEE

Roger Bonnecaze (12/07), **Chair** 

Sivaram Gogineni (12/07) Alan Kerstein (12/07)

Michael Schatz (12/07)

Minami Yoda (12/08) Patrick Weidman (12/08),

Vice-Chair

Lance Collins (12/08)

Tom Solomon (12/08) Jim Grotberg (12/07)

**PUBLICATIONS AND** 

MEDIA COMMITTEE

Detlef Lohse, **Chair** (12/07) Aline Cotel (12/07)

Eberhard Bodenschatz

(12/08)

John Bush (12/08)

Karen Flack (12/08)

Scott Morris (12/08)

Jean Hertzberg (12/09),

Vice-Chair

Andy Cook (12/09)

**PROGRAM COMMITTEE** 

Lex Smits (12/07), Chair

Melany Hunt (12/07)

David Kassoy (12/07)

Wolfgang Losert (12/08)

Jim Riley (12/08)

Rich Lueptow (12/09)

Andrew Belmonte (12/09)

FELLOWSHIP COMMITTEE

Philip Marcus (12/07),

Chair

Nadine Aubry (12/07)

D. Scott Stewart (12/07)

Annick Pouquet (12/08) Jean-Pierre Hulin (12/08) S. Balachandar (12/08) Sutanu Sarkar (12/08)

EXTERNAL AFFAIRS COMMITTEE

Werner Dahm (12/07),

Chair

Jim Brasseur (12/08)

Kimberly Hill (12/08),

Vice-Chair

Mike Plesniak (12/09)

Jane Wang (12/09)

John DeBruyn (12/09)

Shiyi Chen (12/09)

SELECTION COMMITTEE FOR 2006 FLUID DYNAMICS PRIZE

Elaine Oran, **Chair** (12/07)

Tom Lundgren (12/07) Tom Mullin (12/07)

Martin Maxey (12/08),

Vice-Chair

Dan Lathrop (12/08)

Garth McKinley (12/08)

SELECTION COMMITTEE FOR 2006 ACRIVOS AWARD

Sandip Ghosal (12/07),

Chair

Mark Shattuck (12/07)

Fabien Waleffe (12/07) Wendy Zhang (12/07) Paul Steen (12/08),

Vice-Chair

Todd Squires (12/08)

Patrick Tabeling (12/08)

**FRENKIEL AWARD** 

Note: One of these members shall be an Associate Editor of Physics

of Fluids

Eckart Meiburg (12/07),

Chair

Mark Femigier (12/07) Ann Karagozian (12/07)

Sandra Troian (12/08),

**Vice-Chair** 

Zvi Rusak (12/08)

Manoochehr Koochesfah-

ani (12/08)

Michael Graham (12/08)

**Division Website Development Officer** 

Ken Kiger

**Membership Coordinator** 

Timothy Wei

FOR MORE INFORMATION SEE

http://units.aps.org/units/dfd/

- > Governance
- > Committee Membership



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