

# Executive Committee Meeting

6:00 pm, November 17, 2007  
Marriott Hotel, Salt Lake City

**Attendees:** Howard Stone, Steve Pope, Lex Smits, Phil Marcus, Ellen Longmire, Juan Lasheras, Anette Hosoi, Laurette Tuckerman, Jim Brasseur, Werner Dahm, Paul Steen, Minami Yoda, Martin Maxey, Jean Hertzberg, Monica Malouf, Ken Kiger, Tony Ladd, Pat McMurtry, Sharath Girimaji, Krishnan Mahesh, Gary Leal, Rich Lueptow, Bill Schultz, Andrea Prosperetti, Julian Domaradzki, Detlef Lohse, Jim Duncan, John Foss, Ling Miao (Phys Rev Letters), Bruno Eckhardt (Phys Rev E)

## Decisions

- The ExCom approved a proposal to support a standing Committee on Press and Media Relations and their efforts to gain more publicity for accomplishments in fluid dynamics and to improve government funding of fluid dynamics research.
- The ExCom decided to discontinue hard copy distribution of DFD newsletters and to publish all future newsletters on the web only.

## Action Items

- Add weblink to DFD site about archiving videos
- Committee on Press and Media Relations will prepare a plan of action (with proposed costs) for Spring, 2008.
- Committee chairs should turn over legacy documents to the incoming DFD Chair. We should establish an easy method such as a Wiki to improve this process.

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1. Opening remarks by Steve Pope
    - a. Introduction of newly elected members.
      - i. Juan Lasheras, Vice-Chair
      - ii. Anette Hosoi, Member at Large
      - iii. Laurette Tuckerman, Member at Large
  2. The minutes of the May 2007 teleconference were approved.
  3. Report on 2006 Meeting in Tampa. Tony Ladd (see Appendix)
    - a. There were 1485 registered participants at the meeting, and a net profit of \$20,000. Approximately 1300 abstracts were submitted.
  4. Report on 2007 meeting in Salt Lake City. Pat McMurtry (Appendix)
    - a. Attendance: 1447 participants preregistered and 100 on site registrations were expected. 1405 abstracts were submitted and organized into 20 parallel sessions. The number of parallel sessions was increased in order to be able to end the meeting by 1:30 p.m. on Tuesday.
    - b. It was noted that the distribution of cash for travel awards to attendees from developing countries was problematic. Many possibilities were investigated, but in the end, the cash was wire-transferred to the Marriott, and an off-duty police officer was hired to distribute the cash over a 2 hour time period on Sunday of the meeting. San Antonio has a Bank of America branch (APS has their accounts at this bank), so that in 2008, the money could be distributed directly from that bank.

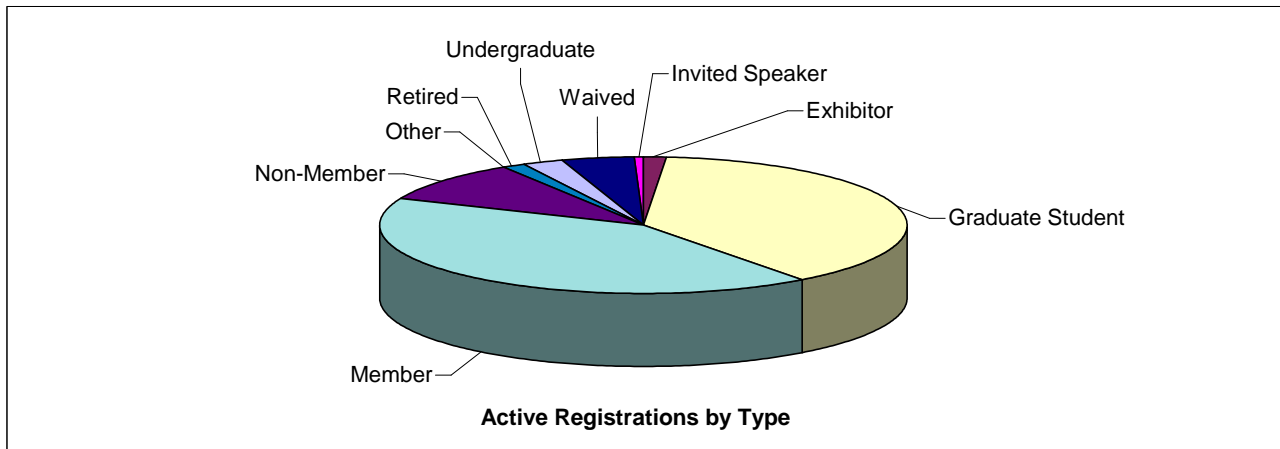
5. Report on the 2008 meeting in San Antonio. Sharath Girimaji (See Appendix)
  - a. Meeting to be held in San Antonio Convention Center (contract finalized). Currently, they have only 16 rooms for parallel sessions but are looking at ways of alleviating this problem.
  - b. Blocks of rooms have been reserved at the Marriott (1500 room nights) and Menger (500 room nights) hotels. Additional hotels are available close by.
  - c. Reception to be held at Sunset Station, 6 blocks from the convention center.
  - d. Stathis Michalides from UT/San Antonio has been added to the local organizing committee.
  - e. It was recommended to check on flights to the East Coast to determine a reasonable closing time for the meeting.
  - f. Sharath noted that Rich Lueptow's document about meeting planning has been extremely helpful and suggested that annual organizers continue to add to this document.
  - g. There was some discussion regarding registration fees, and Sharath is assuming that the regular fee will be increased by \$5 while the student fee will not be increased.
  
6. Report on the 2009 meeting in Minneapolis. Krishnan Mahesh
  - a. A contract has been signed with the Minneapolis Hilton
  - b. The reception will most likely be held at the Minneapolis Conference Center which is one block from the Hilton.
  
7. Report on the 2010 meeting in Long Beach. Julian Andrzej Domaradzki
  - a. A contract has been signed with the LB convention center as well as the local Hyatt(main hotel), Westin (\$179), and Renaissance (\$169) hotels. There are ~5000 hotel rooms within walking distance of the Convention Center.
  - b. They are considering the Aquarium or the Queen Mary for the reception.
  
8. Report on 2011 meeting in Baltimore. Andrea Prosperetti.
  - a. They have reserved the Marriott by Baltimore inner harbor. A contract has been signed guaranteeing 2020 room/nights for which \$190/room is an upper bound. Hotel occupancy greater than 80% will guarantee free use of the meeting rooms.
  
9. Treasurer's report: Ellen Longmire (See Appendix)
  - a. Since all DFD accounts are in a state of flux in the fall because of ongoing income and expenses from the meeting and awards, the tables in Appendix G give account balances in March for the last several years and the account balances as of Fall, 2007. The data from March can be compared reliably from year to year because all meeting and award expenses have cleared by that time. Since 2004, our meetings have all shown modest profits (typically less than 8% of income).
  - b. The Fluid Dynamics Prize and Acrivos Award accounts are continuing to increase modestly each year after payment of awards and expenses.
  - c. The DFD operating account has increased from \$313k in March 2005 to \$360k in March 2007.
  - d. The American Physical Society recommends that each division's operating account have a balance equal to the typical of cost of one its Annual Meetings. Our account balance is within these guidelines. There was some discussion regarding this point as some members thought that it should not be necessary to maintain such a large balance. Jim Duncan noted that DFD does much better than many other divisions in this regard.
  
10. Status of fluids funding at NSF: Bill Schultz
  - a. a 44% base increase in funding was slated at this time.

- b. Total budget is \$9.1M, and in the past year, 20 proposals were funded through Bill's program including 5 Career Awards, 1 PetaOps grant, and 1 workshop.
  - c. stressed that members should submit proposals to the CDI program which stresses cyber, complexity, collaboration, sustainable, and transformative research.
  - d. He would set up a luncheon at DFD meeting for young faculty eligible for the Career award at which he could answer questions and give advice.
11. Ad Hoc Subcommittee on Fluid Dynamics Funding, Jim Brasseur (See Appendix)
- a. A questionnaire will be used to gather info on funding.
  - b. Suggested that we needed to research how to improve our media relations in order to gain more publicity for accomplishments in fluid dynamics. Perhaps DFD should spend some funds toward this effort.
  - c. Proposed to work with Sharath Girimaji (San Antonio 2008) on a plan for press interactions.
  - d. Jim's proposal to establish a standing Committee on Press and Media Relations was approved unanimously by the ExCom.
  - e. This committee will prepare a plan (with costs) to be considered in Spring 2008.
12. Councillor's report: Jim Brasseur (See Appendix)
- a. APS is pushing physics education as part of its mission.
  - b. Congress is asking for increases in physics-related funding from all funding agencies except DOD.
  - c. He has suggested to Judy Franz that APS should have its council meeting coincide with the DFD meeting at some point during 2009-2011.
13. Archiving of Videos: Detlef Lohse (See Appendix)
- a. Videos can be submitted to Cornell via eCommons. They will then have a searchable entry in archive.org. When submitting, a 1 page summary can be included describing the video content. This can be used for Gallery of Fluid Motion submissions as well as any other videos.
  - b. Action items: a web link will be added to the DFD site.
  - c. Jim, Detlef, Sharath, and Ken will work on instructions, examples, and formatting so that videos for the next meeting will be of high quality and become archived.
14. Program Committee (See Appendix for report)
- a. They are looking for suggestions for 2012 meeting location.
15. Fellowship Committee (See Appendix)
- a. The web submission and distribution implemented in 2007 worked poorly.
  - b. Make sure that our allowed numbers of awards are keeping up with our increases in membership.
  - c. Twenty nine members were nominated, and thirteen members were selected as Fellows.
16. External Affairs (See Appendix)
- a. \$30,500 was awarded in travel grants. Funds were provided by DFD (15k), Utah, Utah State, and BYU (\$11.25k), and Schlumberger (5k).
  - b. 83 students submitted applications, and 36 fellowships were awarded.
  - c. T-shirts were designed, contracted, and distributed to students that signed up for the student luncheon. DFD provided funds for the t-shirts.
17. DFD website (Ken Kiger)

- a. The format has been updated by APS, and Ken Kiger continues to serve us as liaison.
18. ICTAM (John Foss, see Appendix)
    - a. \$2500 fellowships will be available for young faculty to travel to ICTAM in Adelaide.
  19. Newsletter
    - a. Phil Marcus proposed to abandon hard copies of the newsletter in favor of soft copies. This idea has already been adopted by other divisions and would save DFD ~\$3500/year. We can generate a direct link to the newsletter in email and on our website.
    - b. This suggestion was approved by the Executive Committee.
  20. Physics of Fluids, Gary Leal
    - a. The gallery publication is a service to DFD and any change in the archiving method is fine with them.
    - b. 2008 is 50th anniversary of PF.
    - c. AIP will have an event in commemoration at 2008 DFD meeting. Also, Gary suggested that AIP would make a donation to DFD.
  21. Phys Rev Letters/ Phys Rev E (Bruno Eckhardt and Ling Miao, see Appendix)
    - a. Representatives spoke to the committee about the connections of each journal to fluid dynamics. At PRL, 3% of submissions are fluids related and their acceptance rate is 30%. Color figures are free in the online version. At PRE, 8% of submissions are fluids related, and the acceptance rate of these articles is 58%.
    - b. They offer video and data storage (related to publication content) through EPAPS, the same service offered by Phys Fluids.
  22. Closing remarks
    - a. Steve Pope thanked everyone for their efforts this year.
    - b. Suggestions for committee members for next year were requested to be made to Lex Smits, incoming DFD Chair.
    - c. Committee chairs: should turn over any legacy documents (or write one) to Lex and next chair. We could use a Wiki with sign in /password to transfer these documents from year to year. Ken Kiger will check on this.

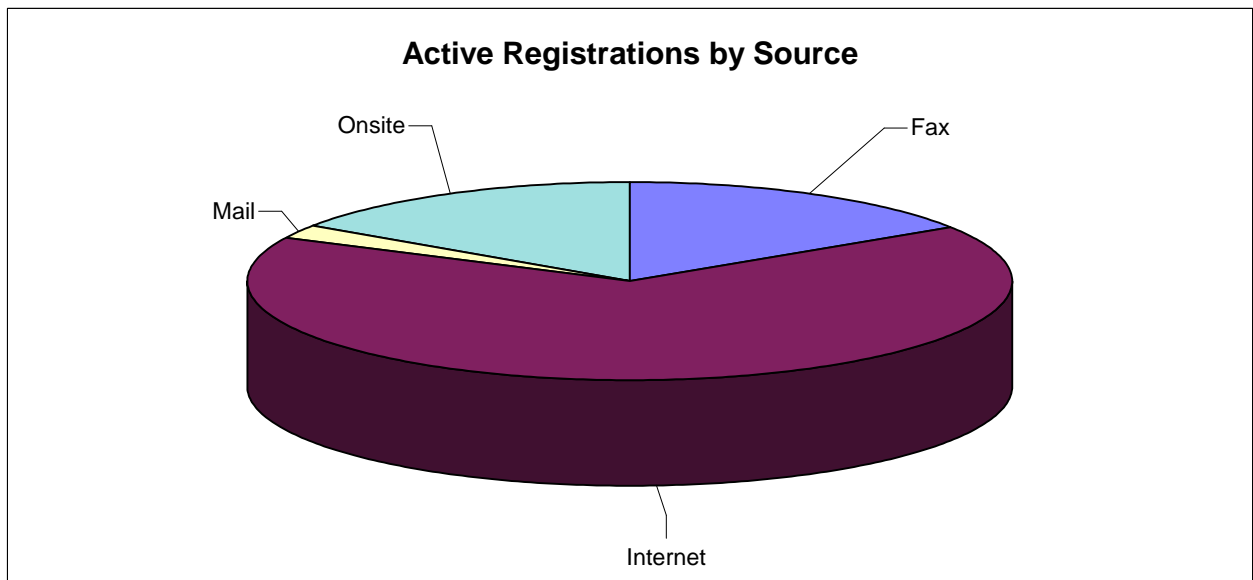
**American Physical Society**  
**59th Annual Meeting of the Division of Fluid Dynamics - Tampa, Florida Nov 19, 2006 to Nov 21, 2006**  
 Registrations by Registration Type

	Category	Count	Percentage
<b>Active</b>	<b>Badge Only</b>	2	0.14%
	<b>Exhibitor</b>	17	1.15%
	<b>Graduate Student</b>	560	37.84%
	<b>Member</b>	607	41.01%
	<b>Non-Member</b>	140	9.46%
	<b>Other</b>	3	0.20%
	<b>Retired</b>	19	1.28%
	<b>Undergraduate</b>	37	2.50%
	<b>Waived Registration</b>	64	4.32%
	<b>Invited Speaker</b>	8	0.54%
		<b>Total Active:</b>	<b>1,457</b>
<b>Cancelled</b>	<b>Graduate Student</b>	5	0.34%
	<b>Member</b>	11	0.74%
	<b>Non-Member</b>	6	0.41%
	<b>Undergraduate</b>	1	0.07%
	<b>Total Cancelled:</b>	<b>23</b>	<b>1.55%</b>
	<b>Total Attendee Registrations:</b>	<b>1,480</b>	<b>100.00%</b>
<b>No-Show Reservations</b>		<b>17</b>	<b>1%</b>



**American Physical Society**  
**59th Annual Meeting of the Division of Fluid Dynamics - Tampa, Florida Nov 19, 2006 to Nov 21, 2006**  
 Registrations by Source

	Category	Count	Percentage
<b>Active</b>	Fax	231	15.61%
	Internet	968	65.41%
	Mail	33	2.23%
	Onsite	225	15.20%
	Phone	0	0.00%
	<b>Total Active:</b>	<b>1,457</b>	<b>98.45%</b>
<b>Cancelled</b>	Fax	5	0.34%
	Internet	17	1.15%
	Mail	1	0.07%
	<b>Total Cancelled:</b>	<b>23</b>	<b>1.55%</b>
<b>Total Attendee Registrations:</b>		<b>1,480</b>	<b>100.00%</b>



## American Physical Society

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Active Registrations by Country

Category	Count	Percentage			
Algeria	2	0.14%	Japan	59	4.02%
Argentina	1	0.07%	Jordan	1	0.07%
Australia	7	0.48%	Mexico	12	0.82%
Austria	2	0.14%	Morocco	1	0.07%
Belgium	10	0.68%	Netherlands	31	2.11%
Canada	29	1.97%	Norway	3	0.20%
Chile	1	0.07%	Poland	1	0.07%
China	1	0.07%	Russia	2	0.14%
Czechoslovakia	1	0.07%	Singapore	1	0.07%
Denmark	5	0.34%	South Korea	18	1.23%
Finland	1	0.07%	Spain	19	1.29%
France	66	4.49%	Sri Lanka	1	0.07%
Germany	18	1.23%	Sweden	10	0.68%
Greece	1	0.07%	Switzerland	3	0.20%
Hong Kong	6	0.41%	Taiwan	6	0.41%
India	2	0.14%	Tunisia	1	0.07%
Iran	1	0.07%	Ukraine	1	0.07%
Ireland	1	0.07%	United Kingdom	45	3.06%
Israel	14	0.95%	United States	1,064	73.25%
Italy	9	0.61%			

## APS

59th Annual Meeting of the Division of Fluid Dynamics - Tampa, Florida Nov 19, 2006 to Nov 21, 2006

U.S. Active Registrations by State

State	Count	Percentage	State	Count	Percentage
Alabama	5	0.47%	New Jersey	39	3.63%
Arizona	17	1.58%	New Mexico	39	3.63%
California	157	14.60%	New York	111	10.33%
Colorado	22	2.05%	North Carolina	9	0.84%
Connecticut	11	1.02%	North Dakota	1	0.09%
Delaware	7	0.65%	Ohio	22	2.05%
District of Columbia	10	0.93%	Oklahoma	4	0.37%
Florida	45	4.19%	Oregon	11	1.02%
Georgia	36	3.35%	Pennsylvania	54	5.02%
Hawaii	2	0.19%	Puerto Rico	2	0.19%
Idaho	1	0.09%	Rhode Island	13	1.21%
Illinois	77	7.16%	South Carolina	7	0.65%
Indiana	26	2.42%	Tennessee	4	0.37%
Iowa	14	1.30%	Texas	48	4.47%
Kansas	1	0.09%	Utah	9	0.65%
Kentucky	4	0.37%	Vermont	8	0.74%
Louisiana	1	0.09%	Virginia	26	2.42%
Maine	1	0.09%	Washington	14	1.30%
Maryland	51	4.74%	Wisconsin	12	1.12%
Massachusetts	65	6.05%	Wyoming	2	0.19%
Michigan	37	3.44%			
Minnesota	37	3.44%			
Mississippi	1	0.09%			
Missouri	5	0.47%			
New Hampshire	6	0.56%			



## American Physical Society

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### Additional Activities

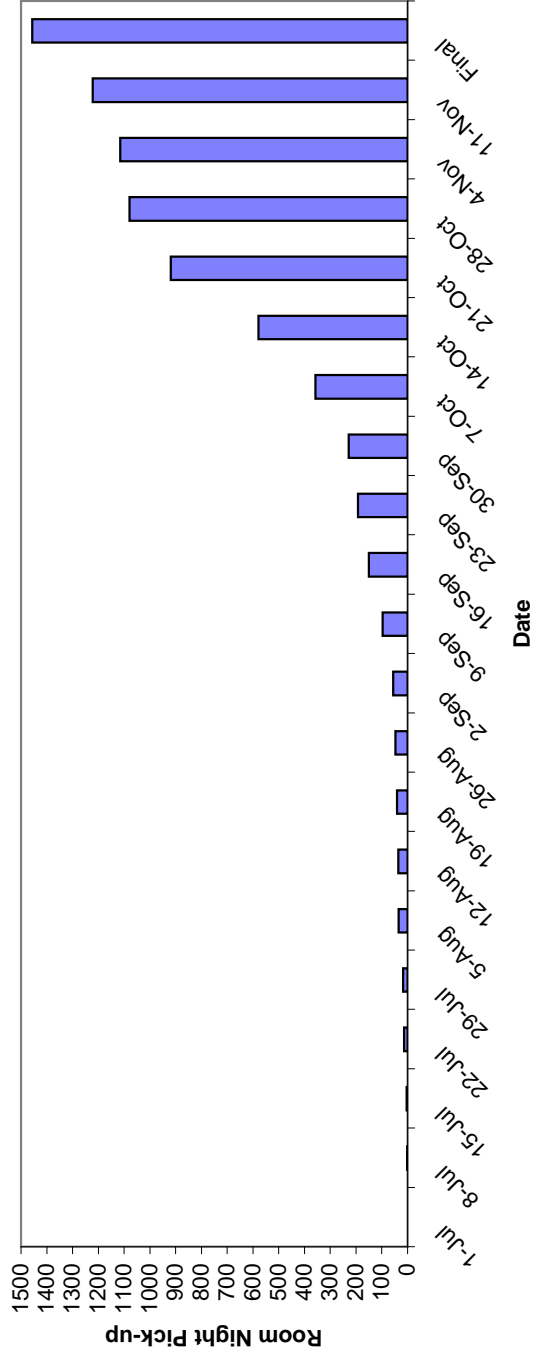
<b>Aquarium Reception Tickets:</b>	<b>1504</b>
Exhibitors	22
Graduate Student	560
Member	607
Non-Member	140
Retired	19
Waived Registration	64
Waived Registration - Invited Speaker	8
Additional Tickets Sold	84
<b>Graduate Students Requesting Membership</b>	<b>358</b>
<b>NonMembers Requesting Membership</b>	<b>95</b>
<b>APS Member Requesting to Join DFD</b>	<b>375</b>

2006 U.S. Army Museum System Training Course  
 June 11 - 15, 2006  
 Salt Lake City, Utah

**PICKUP PACE REPORT**

DATE	PICKUP
1-Jul	0
8-Jul	1
15-Jul	4
22-Jul	14
29-Jul	17
5-Aug	35
12-Aug	36
19-Aug	41
26-Aug	47
2-Sep	56
9-Sep	97
16-Sep	150
23-Sep	192
30-Sep	228
7-Oct	358
14-Oct	579
21-Oct	919
28-Oct	1079
4-Nov	1115
11-Nov	1222
Final	1,457

Registration Pick-up Pace



<b>BUDGET</b>									
<b>APS-DFD 2006</b>									
<b>2.14.07</b>									
	2005	% of	2006	Reg	Total				
	Actuals	Total	Estimate	Fee	Total				ACTUAL
			1400						
<b>INCOME</b>									
<b>Registration</b>									
Early-APS Member	596	34%	482	310	\$149,430				
Early-Non Member	97	6%	78	530	\$41,579				
Early Student	507	29%	410	145	\$59,458				
Early Retired	14	1%	11	145	\$1,642				
Subtotal:						\$ 252,109			
Late-APS Member	175	10%	142	370	\$52,369				
Late-Non Member	64	4%	52	590	\$30,540				
Late Student	159	9%	129	175	\$22,504				
Late Retired	4	0%	3	175	\$566				
Subtotal:						\$ 105,979			
Misc. Comps	5	0%	4						
Student volunteers	18	1%	15						
Planning Committee Comps	11	1%	9						
International Program Comp Reg.	40	2%	32						
Invited Speaker/Awardee Comps	12	1%	10						
Exhibitors	29	2%	23						
<b>TOTAL ATTENDANCE</b>	<b>1731</b>		<b>1400</b>						
Undergrads - Sunday [58]									
Undergrads - Monday [55]									
Undergrads - Tues [45]									
Reception guests	50			60		\$ 3,000			
Subtotal:						\$ 361,088			
<b>Exhibit Revenue:</b>									
Booths/Tabletops	12			1,800	\$21,600				
Subtotal:						\$ 21,600			
<b>Local sponsorship:</b>									
Chemical Engineering					\$1,000				
Mechanical Engineering					\$2,000				
Engineering					3,000				
Liberal Arts and Sciences									
Subtotal:						\$ 6,000			
<b>TOTAL REVENUE</b>						\$ 388,688	\$ 387,770.00		
Less APS Membership Fees	147			110	(16,170)		\$ (10,450.00)	95	
Less APS Student Memberships	335			10	(3,350)		\$ (3,580.00)	358	
Subtotal:						\$ (19,520)			
<b>TOTAL INCOME</b>						\$ 369,168	\$ 373,740		







## **DFD2007**

### **Status Report, Pat McMurtry**

Since the meeting is upon us, this report provides some general statistics and information for future organizers.

**Registration:** 1434 people have preregistered for the DFD07 meeting. This includes 637 APS members, 115 nonmembers, 558 graduate students, 18 retired members, 24 exhibitors (representing 12 companies), 45 undergraduates, and 37 complimentary registrations (invited speakers, local organizing committee, travel award grantees). Last year there were 83 onsite registrations.

**Abstracts:** After a number of late withdrawals, we have 1410 abstracts contributed to the DFD07 meeting. This number includes 8 invited lectures, 4 award talks, and 24 minisymposia talks. 31% of the abstracts were submitted by scientists from outside of the United States, representing 39 different countries.

**Meeting logistics:** AV, food & beverage, and decorator contracts have been in place for some time and all appear to be prepared for the meeting. We recently added a wireless internet service for the attendees that is available in the exhibit hall (not in the meeting rooms).

**Budget:** Budget estimates have not changed in any substantial as previously approved by the DFD executive committee. A few items have been added (e.g., wireless internet, coat rack, water service) but they do not significantly impact the overall budget. My best estimate as of today (11/12/07) is that the meeting will end up in the black by around \$5000.00

**High School Program:** This involved about 20 visits to high schools to talk with teachers and students about fluid mechanics and fluid motion, including demonstrations on some flow visualization. The end product was to have the students making their own posters and videos to display in the Gallery of Fluid Motion. One of our 5 video screens will be reserved for the student videos.

**Educational Videos:** We received 9 educational videos in this first year of trying this experiment. These come in many forms, a few of them are quite good. I hope this will provide some motivation and ideas for future educational submissions.

#### **Difficult issues:**

Visa for international scientists. We ran into some trouble related to US embassies denying or delaying decisions on visa. This seems to have the most impact on Chinese residents working in Europe. Members of the DFD executive committee are aware of this and communicating with future local program chairs on how to more effectively handle this issue.

Payment to travel award grant recipients. Arrangements must be made for meeting attendees from foreign countries receiving travel grants to have either cash or checks they can cash at a local bank. This turned out to be a painful process. Most of this was due to the fact that Bank of America (APS's bank) does not have branches in Salt Lake, and that the University of Utah refused to write checks on local banks to non US citizens without withholding federal taxes. We explored A LOT of options. In the future my recommendations are 1) If there is a Bank of American in the hosting city, simply have APS write checks to the grant recipients that they can cash. If not, make arrangements EARLY to have cash wired to the hotels to distribute to the recipients on site. DO NOT spend a lot of effort trying to come up with a creative solution to this that does not involve either checks from APS or cash.

**Acknowledgments:** Vinaya Sathyasheelappa at APS has been fantastic to work with and a huge help with the abstract submission, sorting process, and the technical program website. Mike Stephens of APS has also been incredibly helpful and a great help in some of the budget and accounting matters. It would be nice if both of these people could receive some sort of official acknowledgment from the DFD.



## **Report from 2008 organizing committee**

*by Sharath Girimaji (Texas A&M)*

I would like to report on four items: (i) Composition of the local organizing committee; (ii) Hotel rates; (iii) Sunday Night Reception; and (iv) Very rough budget

### **Local organization Committee:**

The current committee members are:

- 1) Sharath S. Girimaji (Chair, Texas A&M)
- 2) Bill Saric (Texas A&M)
- 3) Adonios Karpetis (Texas A&M)
- 4) Rodney Bowersox (Texas A&M)
- 5) Harry Swinney (UT, Austin)
- 6) Noel Clemens (UT, Austin)
- 7) Fazle Hussain (U. Houston)
- 8) Paul Krueger (SMU, Dallas, TX)
- 9) Randall Truman (U. New Mexico)
- 10) Malcolm Andrews (LANL, TAMU)
- 11) Frank Chambers (Oklahoma State)
- 12) E. Michaelides (UT, San Antonio)

### **Convention Center and Hotel**

Adequate number of lecture rooms (min. capacity 80 persons) including two large Grand Ballrooms (capacity 1000 each) has been reserved. In addition, we also have two very large multi-use porches one of which overlooks the riverwalk. A total of about 2000 hotel room nights have been reserved:

Mariott (Riverwalk and Rivercenter locations): ½ Block from Convention Center. \$142 – 152/night. 1500 room nights

Menger Hotel: 2 Blocks from Convention center. \$119/night. 500 room nights.

In addition, several hotels over a broad price range are available within easy walking distance.

## Sunday-night reception.

The reception will be held at *Sunset Station*, a special events center located next to the Alamodome. The *Sunset Station* is about six blocks from the hotels. It is within easy walking distance from the hotels. None the less, we are considering providing two buses that will run continuously between the hotels and the *Sunset Station*. The cost is about \$53/pp.

## Budget

An excel file with preliminary budget is included. The budget is prepared on the basis of 1425 paid registrants. Most of the individual budget numbers are comparable to 2007 meeting with modest increases.

APS 2008 Budget				
	Projected based on paid attendee of:			1425
Income				
Registration	Number	Fee		
Early APS	525	\$325		
Early non-APS	85	\$550		
Early Student	446	\$150		
Early Retired	12	\$150		
Late APS	154	\$395		
Late non-APS	58	\$605		
Late Student	140	\$180		
Late Retired	4	\$180		
Registration Income:				407972
Housing Income	Room Nights	Income/rm		
	2178	\$0		0
Booths	Number	Fee		
	12	\$1,800		21600
Minus Membership	Number	Cost		
Full membership	143	\$111		15633
Student membership	350	\$10		\$3,500
Net Income:				410439
Expenses:				
San Antonio Convention Center Rental				\$23,000
Attorney Fees				\$1,000
Conference Services and materials				\$1,500

Signage/Furniture/Booths	\$12,000
Registration	\$40,000
Video Gallery A/V (Included in AV and timing)	\$0
A/V and Timing	\$70,000
Highschool Program	\$2,000
Hotel (invited Speakers/Staff)	\$2,000
Food and Beverage	
Breaks	\$60,278
Exec Dinner	\$2,000
Student luncheon	\$2,800
Reception	\$69,300
Reception Entertainment	\$4,000
Box lunches/Breakfast (staff)	\$2,000
Printing and Promotion	
BAPS	\$55,000
Synopsis	\$9,500
Bags	\$3,000
Postcards, posters	\$1,500
Meeting management:	
Meetings and More 2007 meeting fee	\$35,000
2008-2010 meeting costs charged to 2007	\$6,000
Web site and signage design	\$3,500
Promotional mailing	\$0
Security (60 hours at \$17/hour)	\$2,000
Paramedic (30 hours at \$18/hr)	\$700
Miscellaneous	\$2,000
Total Expenses:	\$410,078
Net	\$361.22

## DFD Treasurer's Report, Ellen Longmire

### Award Account Balances

<b>Award</b>	<b>9/30/07</b>	<b>3/31/07</b>	<b>3/31/06</b>	<b>3/31/05</b>
Acrivos	\$74,136	\$71,595	\$68,755	65,413
Fluid Dynamics Prize	143,613	138,692	140,575	141,320
Laporte	133,095	128,534	119,870	111,787
FDP + Laporte	276,708	267,226	260,445	253,107

### Operating Account Balance

<b>Account</b>	<b>9/30/07</b>	<b>3/31/07</b>	<b>3/31/06</b>	<b>3/31/05</b>	<b>3/31/04</b>
Operating	\$369,724	\$360,069	355,314	313,682	265,085

The American Physical Society recommends that each division's operating account have a balance equal to the typical of cost of one its Annual Meetings. Based on expenses for recent meetings, our account balance is close to the APS guidelines.

### Recent Meetings

<b>Meeting</b>	<b>Income</b>	<b>Expense</b>	<b>Profit (loss)</b>
Salt Lake (2007)			
Tampa (2006)	380,700	353,190	27,510
Chicago (2005)	441,087	421,913	19,174
Seattle (2004)	336,979	308,922	28,057
NJ (2003)	308,860	329,396	(20,536)
Dallas (2002)	258,420	249,035	9,385

### **Ad-hoc Committee on Fluid Dynamics Funding**

**Committee Members:** Jim Brasseur (chair), Phil Marcus, Mike Plesniak, Lex Smits, Bill Schultz

#### **Questionnaire**

In the May telecon, we presented a questionnaire to the executive committee to solicit information from the fluid dynamics community on their current and past sources of funding. A number of suggestions were made both during the meeting and in subsequent email exchanges. The form was sent to Ken Kiger who forwarded it to APS for installation on the APS/DFD website. Jim Egan of APS returned a series of questions, and our committee had further discussion, leading to further revisions. The revised questionnaire and responses to questions have been sent back to APS. We are currently awaiting completion of the installation process. The revised questionnaire is at the end of this summary<sup>†</sup>.

#### **Media Relations**

Our committee has had extensive discussions on directions that the DFD might take to increase visibility and, ultimately, funding of fluid dynamics research. We continue to work towards the goals outlined by the executive committee in the May telecon. More recently, however, we focused efforts on specific ideas that would lead to coordinated sustained long-term efforts by the DFD to enhance awareness of fluid dynamics in the media and in the funding agencies.

One development that we, as a committee, strongly favor is well-coordinated interaction with the press and other media surrounding events, presentations, and discoveries reported at our annual meeting that are of interest to the general public. The gallery of fluid motion, for example, is an obvious source of images that press reporting on our meeting could use with their stories about interesting goings-on in the science and education of fluid dynamics. One example of a special interest story that the press might report is the special interface that Pat McMurtry made with high schools at the 2007 annual meeting in Salt Lake City. Such a story could have been accompanied with an educational image from the gallery of fluid motion—had the press been invited to our meeting. Specific presentations and discoveries might be good sources for press releases. Interdisciplinary topics with broader appeal are of special interest (for example, the “virtual stomach” generated a great deal of press for Jim Brasseur and Penn State), technology stories (e.g., microfluidics), and stories with potentially special scientific appeal (e.g., the red spot research of Phil Marcus, Lex Smits’ “superpipe,” “cyber-science,” etc.).

Our committee has done some preliminary research on methods used by other societies in media and public relations, and has begun to investigate the potential value of bringing professional expertise in media relations into the DFD, the different levels of expert help, its integration with a specific committee within the DFD directed at media and public relations, and associated costs. Jim spoke with Monica Malouf of Meetings and More. Whereas Meetings and More do not have direct experience in media relations, Monica has contacts that do, and she is investigating these contacts. Monica strongly supports our proposal to develop a public relations entity within DFD and feels that some level of longer term professional help will be very beneficial. She will report back to our committee on her findings.

Phil has spoken with a public relations member of the Division of Planetary Sciences (DPS) of the American Astronomical Society. This division works closely with NASA and their public relations office—an extensive operation staffed with paid professionals—who work with the DPS at their annual meeting to liaison with the press organized around their planetary missions.

Although the DFD does not have direct access to paid public relations professionals paid for by a government agency, Phil was strongly encouraged in his discussions for the DFD to develop a well-designed strategy as has the DPS.

Lex spoke with Tawanda Johnson, Press Secretary at APS. Tawanda expressed the opinion that “establishing a press secretary” within DFD is a “good move.” She put Lex in touch with Alan Chodos, Associate Executive Officer of the APS, who discussed press coverage at the APS March Meeting. There is a “press room” at the March and April meetings manned by 1 APS person and 2 to 3 people “borrowed” from the AIP (American Institute of Physics), all paid for by APS. During the March meeting press conferences are held, press kits are available, and the media report on events of interest to the general public. The Division of Plasma Physics (DPP) of the APS has a “virtual” press office at their annual meeting. and works closely with APS Media Relations. Lex is obtaining more information and Jim will contact the AIP to obtain information on hiring their services for possible DFD media relations.

Bill has found that the ASME annual meeting, with roughly twice the number of attendees as the DFD, has six people dedicated to interacting with the press at their annual meeting and the reporters register (for free) under a special “press” category at the meeting. Mike is making contact with the Public Relations office at the NSF to explore the passing of public relations materials (press releases, special interest stories, etc.) also through NSF media offices as a way of increasing visibility of fluid dynamics within the NSF.

### **Action Items: Two Proposals on Press and Media Relations**

After a number of discussions as described above, the Committee on Fluid Dynamics Funding would like to make two proposals to the Executive Committee of the DFD:

PROPOSAL 1: We propose that a new standing committee within the DFD be formed called the “Committee on Press and Media Relations” that reports to the Executive Committee. We propose that the duties of this committee shall include: (1) organization of media and press relations at our annual meeting, (2) researching and prioritizing ideas for media and press relations, (3) develop, over time, a well-designed structure within the DFD that will maintain media and press relations over the longer term as the officers on the executive committee change, and (4) make proposals to the executive committee for approval to carry out the described objectives.

PROPOSAL 2: We propose that the newly established Committee on Press and Media Relations prepare a report for consideration by the executive committee within the first 2-3 months of 2008 with a specific plan (with costing) to have some level of press and media relations at the 2008 Annual Meeting in San Antonio.

### **†Revised Questionnaire**

*To send to DFD members by email:*

#### **Do you want to know where to find funding for research in Fluid Dynamics?**

The Division of Fluid Dynamics of the American Physical Society (APS/DFD) would like help the fluid dynamics research community identify how to search for funding opportunities now and in the future. In addition we would like to initiate an effort to improve funding in research that involves fluid dynamics. Both of these endeavors will benefit all DFD fluid

dynamics researchers. We are requesting that principal investigators (PI and coPI) of fluids related grants help us gather data that we can use to accomplish our objectives. We will create a summary of the funding profile with recommendations for the Fluid dynamics community that will be placed on the APS/DFD website. We request that you please provide us with whatever data you can by going to the website, ??.

The questionnaire requests information in three areas: (1) current fluids-related research activity of PI/coPI, (2) current fluids-related funding of PI/coPI, and (3) past fluids-related funding of PI/coPI. We anticipate that the first two areas will only require 5 minutes to complete, while “Past Fluids-related Funding” will require more time in order to search for this information. Please fill out as much or little as you can—any information you provide is useful.

We shall start compiling the data on ??, so please try to respond by then.

*To include on the website:*

**Questionnaire to collect data from which we hope to learn  
where to find funding for research in Fluid Dynamics.**

The Division of Fluid Dynamics of the American Physical Society (APS/DFD) would like help the fluid dynamics research community identify how to search for funding opportunities in fluid dynamics now and in the future. In addition we would like to initiate an effort to improve funding in research that involves fluid dynamics. Both of these endeavors will benefit all DFD fluid dynamics researchers. We are requesting that principal investigators (PI and coPI) of fluids related grants help us gather data that we can use to accomplish our objectives. We will create a summary of the funding profile with recommendations for the fluid dynamics community that will be placed on the APS/DFD website. We request that you please provide us with whatever data you can in responding to this questionnaire. We shall start compiling the data on ??, so please respond by then. Your responses are anonymous, however please be as accurate as possible; the greater the accuracy, the more useful will be the data for you.

**CURRENT FLUIDS-RELATED RESEARCH ACTIVITY OF PI/coPI**

Please identify the scope of your current research activities that involve fluid dynamics at a significant level by filling in the following table:

Country of PI/coPI	Number of graduate students	Number of post-docs	Number of technical or other senior staff members	Number of undergraduates active in your research	Are you a member of APS Div. of Fluid Dyns?
					yes/no

**CURRENT FLUIDS-RELATED FUNDING**

Please identify your current funding sources for research that involves fluid dynamics. Please include the name of the program within the funding agency, the total time period for support, and the total financial support in US dollars, by filling in the following table. *Note: If you are the PI or co-PI on a larger multi-group effort, please include funding only for the fluids-related effort for which you are PI or coPI (e.g., if you are a subcontract on a larger effort, please include only the figures for your subcontract):*

**CURRENT FLUIDS-RELATED FUNDING OF PI/coPI**

Funding Agency or Source	Country of Funding Source	Program within the funding agency.	Total number of years support	Total support in U.S. dollars.	Does your quoted support include indirect costs?
					yes/no
					yes/no

... include 10 rows

**PAST FLUIDS-RELATED FUNDING**

We know that this is a more difficult request, however if we are to establish funding trends in fluid dynamics from which we can extrapolate into the future to provide guidance to the research community in fluid dynamics, and to help in advocating for more funding in fluid dynamics related research in the future, we need data on past funding. The more of this data you can provide on past research that involved fluid dynamics, the more we will be able to provide you an accurate assessment of funding trends, so please provide as much information for as far back in the past as possible on the following table. If you do not remember, leave blank; if you need to estimate, please put “(est)” next to the number; however, please provide as much data as you can. *Note: If were the PI or co-PI on a larger multi-group effort, please include funding only for the fluids-related effort for which you were PI or coPI (e.g., if you were a subcontract on a larger effort, please include only the figures for your subcontract):*

**PAST FLUIDS-RELATED FUNDING OF PI/coPI**

(if your number is an estimate, please place “(est)” next to the number)

Year in which support began	Country of Funding Source	Funding Agency or Source	Program within funding agency	Total number of years support	Total support in U.S. dollars.	Does your quoted support include indirect costs?
						yes/no
						yes/no

... include 20 rows



## **DFD Councillor Report, Jim Brasseur**

### **APS Council Meetings**

At the Executive Committee telecon last May, I reported on issues brought up at the APS Council meeting on 13 April 2007. I attach the finalized minutes to that meeting as attachment A. I remind the executive committee of three comments I made in my report to our May meeting: (1) in context with a report under development by the APS Panel on Public Affairs (POPA) on nuclear energy issues, and a major study being lead by Burt Richter (Nobel Laureate) on Energy Efficiency and emissions, I suggested that the DFD may way to look at ways in which it might position itself to integrate with funding increases for nuclear energy research and environmental issues; (2) integrated with the APS effort to increase K-12 teachers of physics, I suggested that "Fluid dynamics is an excellent subject to interface between "physics" and "society," so we may want to become involved in the outreach and education activities of APS. This could increase out visibility within APS as well as increase awareness of fluid dynamics to the general public and, if we did this well, congress and NSF." In context with the latter issue I put Jean Hertzberg in touch with a person at APS (Alan Chodos, if I remember correctly) to follow through on the concept. I have not heard if anything has evolved from this contact.

The next APS Council meeting is on Sunday 18 November 2007 (during the DFD annual meeting). I will report back to the APS about this meeting at the next meeting of the DFD executive committee. Reports on the agenda of interest to DFD include: (1) APS Study on Energy Efficiency, (2) POPA/AAAS Study of Nuclear Forensics, (3) POPA S"tudy of Workforce and Educational Facilities Readiness to Meet the Future Challenges of Nuclear Energy," (4) Education and Diversity, (5) International Affairs: discussion on (a) the effects of post 9/11 security on VISAs for international attendance to scientific meetings in the USA), and (b) export controls, (5) Washington update on funding. I attach a table of requested appropriations in different funding agencies as attachment B. Note that requests have been made in congress for substantial increases in DOE, NSF, NIST, and reductions in DOD 6.1/6.2.

### **Coordination of Fall APS Council Meeting with the DFD Annual Meeting**

Because the APS Council is meeting on Sunday of our annual meeting, I was forced to travel between Salt Lake City and Denver and miss a full day of our annual meeting. I complained to the APS and requested that future meetings not be scheduled to overlap with the APS-DFD meeting. I had a long discussion with Judy Franz, one of the three primary executive officers of APS about the issue and discovered that there is supposedly an attempt to overlap the APS Council Meeting with Division of Plasma Physics (DPP) one year and Division of Fluid Dynamics other years at the same location as these meetings in an attempt to foster closer ties with these two divisions, neither of whom have historically been well represented at the March and April APS meetings. I reacted very favorably to this idea and offered to help organize cross interactions between APS, other division councillors, and the DFD at our annual meeting and executive committee meeting. I pointed out that this year would have been a golden opportunity had the Coucil met in Salt Lake City rather than Denver — clearly the original concept of cross-communication was on the minds of the organizers of the council meetings. Next year the Council will overlap with DPP. I have made a formal proposal to the APS Executive Committee for their February meeting that a future date be established for the Fall APS Council to meet on the Saturday and Sunday of the DFD and at the same location as the DFD. If this were to happen, we would want to organize special interactions with the APS Executive Committee and with councillors of other divisions of the APS such as Computational Physics and Biophysics. In the event that this is not possible, I requested that they do not overlap with the DFD meeting.

**DRAFT MINUTES**  
*American Physical Society*  
**COUNCIL MEETING**

Hyatt Riverside Hotel, Jacksonville, Florida  
*April 13, 2007*



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**Members Present:** R. Austin, C. Back, A. Balantekin, E. Beise, A. Bienenstock, J. Brasseur, M. Chan, C. Dermer, R. Eisenberg, R. Eisenstein (*briefly by phone*), D. Ernst, L. Feldman, J. Franz, D. Hammer, P. Hammer, W. Hill, J. Hopfield, J. Jaros, P. Julienne, L. Kadanoff (*Presiding*), S. Milner, P. Mooney, C. Murray, A. Orel, C. Parmenter, A. Ramirez, S. Rolston, R. Ruth, J. Serene, R. Slusher, G. Sprouse, R. Stuewer, P. Wolf, P. Zimmerman

**Members Absent:** E. Hu, R. Martin, M. Murnane, A. Wagner

**Advisors Present:** F. Dylla (*AIP*), H. Leff, (*AAPT*), F. Ramos, (*SMF*)

**Guests Present:** None

**Staff Present:** S. Brown, A. Chodos, K. Cole (*Recording*), A. Flatten, A. Halsted, B. Hicks, T. Hodapp, R. Kelly, M. Lubell, M. Stephens

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**APRIL 13, 2007**

**Welcome and Approval of Minutes**

Kadanoff called the meeting to order at 8:35AM and welcomed everyone. He asked Franz to introduce new members to the group. Franz recognized: C. Murray, G. Sprouse, R. Austin, E. Beise, J. Brasseur, D. Hammer, P. Julienne, and S. Rolston. New advisors to the Council included: F. Dylla, H. Leff, and F. Ramos.

Kadanoff asked if there were any comments or corrections that should be made to the minutes of the last Council meeting as presented. There were none.

**MOTION:** *That the Council approves the draft minutes of the November 5, 2006 meeting held at the APS Headquarters in College Park, MD, as presented. (P. Hammer/Eisenberg)*

**ACTION:** *Passed unanimously*

**Report from the President**

Kadanoff said that the influential report "*Rising Above the Gathering Storm*" called for scientists to broaden and intensify research activities. This past year the APS did much to successfully advocate for increased funding for science. This year, Kadanoff hopes to look more intensely at other parts of the ...*Gathering Storm*... recommendations, particularly those focused on education and informing the public. He hopes to increase APS activities in these areas. He said there is much enthusiasm on the Presidential Line and the Executive Board to further these goals and asked for Council input on these initiatives as the meeting progressed.

## **Report from the Executive Officer**

### ***Annual Report***

Franz noted that preliminary copies of the 2006 APS Annual Report had been distributed and encouraged everyone to take a few minutes to look through it as it outlines the major activities and accomplishments of the Society in 2006.

### ***Congressional Fellows***

Franz announced that the Congressional Fellowship Selection Committee had met recently and interviewed five finalists for the new Congressional Fellows year starting in September. She said there was an excellent group of candidates. After the interviews, Franz said it was discovered that one of the top two candidates was also a top candidate chosen by an American Institute of Physics (AIP) selection committee. After some coordination between selection committees, Matthew Bowen (*Univ. of Washington, Seattle*), and John Veysey, II (*Univ. Illinois, Urbana-Champaign*) will be sponsored by the APS and AIP respectively.

### ***Unit Convocation***

Franz drew attention to the agenda for the Unit Convocation that was held at the American Center for Physics (ACP) on February 17, 2007. The Unit Convocation is held every year as an opportunity to bring new unit officers together as an orientation to Society activities, to meet and become acquainted with APS Staff, and to network with other unit officers. She said the emphasis for the 2007 Unit Convocation was on how to involve units involved in education and outreach. She said this year there were approximately 80 unit officers who attended, and over half of them arrived a day early to participate in a day-long Congressional Visiting Program organized by the APS Washington DC office.

### ***Membership***

Franz reported that the official APS membership number for 2007 was 46,293. This is another new record for the Society. She said the increase appears to be primarily in the number of students and the result of concentrated efforts to retain students after their first free year expires. She noted that this membership increase has taken place in spite of a decline in the number of Ph.D. degrees awarded in physics. The most exciting development of the new membership numbers is that there is a sufficient number of members (6% of the total APS membership) in the Forum on Graduate Student Affairs (FGSA) to allow them to elect a representative to the Council. The FGSA will be electing a Council representative in their next annual election and the new FGSA Councillor joining the group in 2008.

### ***Report of the Nominating Committee***

Franz drew attention to the report of the Nominating Committee which met at the ACP in February to draw up a slate of candidates for the annual APS election. The election will begin the middle of June and those elected will take office on January 1, 2008.

## **MEMBERSHIP-WIDE ELECTION (Summer)**

**Vice President**

Curtis Callan, *Princeton University*  
William Bardeen, *Fermilab*

Ani Aprahamian, *Notre Dame University*  
Marcela Carena, *Fermilab*  
Jenchieh Peng, *University of Illinois*

**Chair-Elect, Nominating Committee**

Jorge Pullin, *Louisiana State University*  
Angela Olinto, *University of Chicago*

**International Councillor**

Se-Jung Oh, *Seoul National University, Korea*  
Sabyasachi Bhattacharya, *Tata Institute of Fundamental Research, India*

**General Councillor**

Katherine Freese, *University of Michigan*

**COUNCIL ELECTION (Fall)****Member, APS Nominating Committee**

Aihua Xie, *Oklahoma State University*  
Sacha Kopp, *University of Texas, Austin*  
Bradley Filippone, *Caltech*  
Chandrashekhhar Joshi, *UCLA*

**Member, Panel on Public Affairs**

Piers Coleman, *Rutgers University*  
Robert Jaffe, *MIT*  
James Drake, *University of Maryland*  
Tina Kaarsberg, *Department of Energy*  
Brendan Plapp, *Department of State*  
Peter Zimmerman, *King's College London*  
John Ullo, *Schlumberger*  
George Gollin, *University of Illinois*

**Vice-Chair, Panel on Public Affairs**

Robert Socolow, *Princeton University*  
Richard Meserve, *Carnegie Foundation*

Franz gave an update on progress being made on recommendations from two of the recent task forces. She said the Task Force on Ethics Education recommended that case studies involving various ethics situations be made available on the web for students and for educators. Recently the case studies written by the task force were posted and made interactive so that comments on ethics issues raised by the cases as well as new case studies can be submitted. The ethics case studies can be found on the APS website at:

[www.aps.org/programs/education/ethics/index.cfm](http://www.aps.org/programs/education/ethics/index.cfm). Franz also told of efforts that are being made on recommendations from the Task Force on Industrial Physicists. Several recommendations of the task force involve coordination with other societies which takes more time to work on but the activities that the APS can directly impact and are working on include, publicizing the AIP publications search engine, *Scitation*; making meetings archives searchable and available on the web; working on a prize for industrial physicists; improving and creating new journal and article packs from both APS and AIP journals; and better ways to recognize industrial physicists through the fellowship program.

Franz noted that the American Chemical Society (ACS) has recently decided to terminate membership for its 39 Iranian members. She said that an attorney for the ACS had decided that their membership in the society constituted activity that was in violation of embargo rules. Franz said that there are no plans and does not foresee a need for the APS to take similar action at this time.

## **Report from the Editor-in-Chief**

Sprouse said a major goal for the APS journals and publishing activities is to maintain and improve journal quality. He expressed a strong interest in establishing a program to recognize outstanding referees similar to the existing APS fellowship recognition program. He envisions recognizing about 500 referees when the program is first announced and adding approximately 150 names each year thereafter. Sprouse showed a slide indicating the location of referees and noted that there are more European referees now than American referees. He said this illustrates how international APS journals have become and said he would like to recruit more Chinese and Japanese referees. Another way Sprouse said that journal quality can be maintained and improved is through recruiting outstanding editors. He said that Frank Zimmerman has just accepted the invitation to be the new editor for *Physical Review Special Topics – Accelerators and Beams* replacing Bob Siemanns the founding editor for the journal.

Sprouse indicated a way to improve the quality of APS journals is to highlight in new and innovative ways the content already in them. He told of the new “Editor’s Suggestion” feature where editors select particularly well-written or timely new articles that are of general interest to bring attention to them. This seems to be working quite well as articles highlighted as a cover article and those receiving an “Editor’s Suggestion” have a significantly higher number of downloads as other similar articles. Sprouse mentioned several new services and new content that is under consideration or being initiated, all of which are referred to under the term “Journal Innovations” (JIN). Sprouse noted that 2008 is the 50<sup>th</sup> Anniversary of *Physical Review Letters* (*PRL*) and that plans are already underway to not only celebrate this milestone but also to take advantage of the event to launch marketing initiatives for all APS journals.

Sprouse spoke for some time about the challenges of open access and the APS response with the “*Free to Read*” program for author-pays articles. He said this would be a major topic of discussion at the Publications Oversight Committee (POC) meeting now scheduled at the end of May. Sprouse told of a new innovation that will be appearing shortly which will list the authors’ names on various articles in English followed by their name in their native language in parenthesis. This will happen first with Chinese and Japanese authors where it frequently occurs that several different authors all have the same first and last name in English. The tonal qualities of Chinese names are lost when transliterated into English and listing author names in their native language will be a big step in overcoming author confusion.

## **Report from Panel on Public Affairs (POPA)**

Eisenstein joined the meeting via speaker phone and told the group of several activities POPA is undertaking. He reported that the coalition of societies and organizations on Intelligent Design are working on a strategy to deal with this attempt to discredit the teaching of evolution in the science classroom. He noted two short POPA studies and reports that are being organized, one to look at nuclear forensics and the other to do an evaluation and make recommendations for developing a competent nuclear workforce. Eisenstein said the APS is working informally with a group put together by the American Association for the Advancement of Science (AAAS) to assess the Reliable Replacement Warhead (RRW) and its role in the future of the US nuclear weapons program. A report from this study group, chaired by Bruce Tarter should be released

very shortly. Eisenstein briefed the group on the Electricity Study report that had been approved for public release the day before at the Executive Board meeting. The report describes in non-technical terms six promising energy storage technologies with recommendations for further research and development.

### **CO<sub>2</sub> reduction and energy efficiency study**

Lubell introduced a discussion of a proposed APS study to look at the research agenda needed for a reduction of carbon dioxide through increasing energy efficiencies, particularly in buildings and in transportation. He gave background information on the proposal, stating that it was initially considered as a much broader study but after considerable discussion with a number of important organizations and individuals, it was decided that the focus should be narrowed to its present form, emphasizing efficiency. He said the study would look at existing and emerging technologies in energy efficiency in order to make a “research roadmap” or suggest a portfolio for policy makers to follow for investing in research and development. He listed several criteria that he recommended for appropriateness to conduct APS studies of this magnitude and said that this proposed study meets all of these criteria. He spoke of discussions with a number of other organizations who are looking at CO<sub>2</sub> studies and all have been highly encouraging of the APS to move ahead as it is a very important piece of the larger picture and all feel that the APS is the right organization to work in the proposed focus area.

There was an extended discussion on the as yet unresolved issue of appointing a chair for the study. Lubell said that it is very possible that co-chairs could be appointed in order to provide expertise and gain credibility in both the scientific as well as the policy arenas. Names of potential chairs and co-chairs were discussed and everyone was encouraged to suggest more names as it was felt the chair appointment was one of the most important issues in initiating the study.

**MOTION:** *That the Council accepts the proposal to organize and conduct a study on energy efficiency and encourages the APS initiate the study upon the appointment of a chair or co-chairs. Due to the importance of this issue, an exception is made to the normal process of seeking external funding for APS studies and the Council approves \$300,000 from the FY07 budget to begin the energy efficiency study. The Council also approves underwriting the project up to the total amount of \$700,000 if insufficient outside funds are not obtained. (Kadanoff/Bienenstock)*

**ACTION:** *Passed unanimously*

**MOTION:** *That the Council encourages the energy efficiency study group to use as its initial working title: “Leading the way... On Security and Climate Change Energy Efficiency: A Roadmap for Research.” (Eisenberg/Zimmerman)*

**ACTION:** *Passed with three abstentions*

### **Report from International Affairs**

Flatten gave an update on the issue of export controls. She said that a group called the Deemed Export Advisory Committee (DEAC) made up of eleven business and academic leaders has been formed to hold a series of public meetings to gather information and shape recommendations

related to export controls. She said ideally any policy rules and regulations will be drafted by the Department of Commerce in collaboration with the DEAC. An advisory report is expected in the fall.

Flatten also told of developments regarding H1-B visas. She said that legislation on immigration reform that included re-writing various parts of the rules for student and long-term research visas was lost with the expiration of the last legislative term. However, both the House and the Senate are expected to re-introduce very similar legislation in this session. One House version of such a bill is referred to as the STRIVE Act, an acronym for “Security Through Regularized Immigration and a Vibrant Economy” and has been designated as HR 1645. A Senate bill is expected soon, similar to S. 2611 of the last session.

### **Report from Outreach**

Chodos briefed the group on ongoing activities including the announcement of the winners of the popular PhysicsQuest contest. He said there were 8,700 kits distributed to middle school science classrooms across the country with 900 classes submitting answers, of which 290 were correct. Five 1<sup>st</sup> place groups were selected in a random drawing of all those correctly solving the puzzle, and the Grand Prize went to a group of 20 sixth-grade girls from Chicago. He also mentioned two public lectures that were given in conjunction with APS meetings this year. Tim Gay spoke in a popular public lecture on the topic of “Thursday night football physics” at the March Meeting in Denver, and Diandra Leslie-Pelecky gave a public lecture on “NASCAR Physics” at the April Meeting.

Chodos presented an invitation from an organizing group, asking the APS to participate in “The Year of Science 2009” activities. This is a nationwide effort to engage the American public in activities that will stimulate their interest in and appreciation of the process and nature of science. He said there are a number of other scientific organizations that have already agreed to participate and that a website has been established describing the goals of the effort in more detail ([www.yearofscience2009.org](http://www.yearofscience2009.org)).

**MOTION:** *That the Council approves of the APS participation in 2009, Year of Science activities.* (Franz/Bienenstock)

**ACTION:** *Passed unanimously*

### **Report from Education**

Hodapp gave a brief overview of the statistics related to the number of physics teachers being produced in this country and said that the demand for physics teachers in middle and secondary schools greatly exceeds the number of physics teachers graduating.

Hodapp updated the group on activities related to the PhysTEC and PTEC programs. He said that PhysTEC announced a request for proposals for 4 new sites to be added to the program in 2006 and was amazed that 45 viable proposals were submitted. The field was narrowed to 12 and a panel selected 4 sites after additional information was gathered. The new sites participating in the PhysTEC program are: Cornell University, Florida International University, University of Minnesota – Twin Cities, and the University of North Carolina at Chapel Hill.

Hodapp said the 3<sup>rd</sup> national meeting of the PTEC coalition met in Boulder, Colorado just before the March Meeting and that the coalition now has 82 members. The next PTEC meeting is already being planned for February 29 in Austin, Texas and PTEC is now a participating partner in the new education initiatives sponsored by the ExxonMobil Corporation.

Hodapp spoke of a Gender Equity Conference that will be held at the ACP May 6 – 8, co-chaired by Artie Bienenstock and Nora Berrah. The conference attendees will be mostly representatives from research universities, national laboratories and government agencies such as the NSF and DOE. The conference will feature a number of different talks, panel discussions and breakout sessions on issues related to gender equity.

Kadanoff said that the “...*Gathering Storm*” report calls for increased efforts in science education. He said that the APS efforts in education and outreach have been good but need to be taken to a higher level even if it requires additional amounts of money and human effort. He mentioned recent increases in outreach including adding a media relations staff member in the Washington, DC office and the establishment of an ad hoc committee on Informing the Public to provide guidance and improve APS offerings related to outreach. He stated that APS educational programs should be promoted more, saying that the Committee on Education is working to draw up proposals to expand educational programs, particularly to increase the number of physics teachers.

### **Report from the Audit Committee**

Ramirez reminded the group that the 2006 Audit Committee had to work quite late in the year to obtain the services of a new independent auditor as the previous auditing firm was no longer available. He said the new firm of BDO Seidman LLP appeared to worked out quite well as everyone on the Audit Committee were pleased with their efforts and report, particularly their quick grasp and understanding of the special relationship between the APS and the AIP. He said there were no material issues noted by the independent auditor. The Audit Committee reviewed the Business Continuity Plans in place at the College Park and Ridge facilities. The Committee was pleased with the thoroughness of the publications plan to mirror all publications activities at geographically separated sites around the country and suggested that such mirroring of College Park internet activities should be considered as well.

Ramirez said the Audit Committee noted a possible weakness in efficiency resulting from the existence of two separate and distinct information technology groups and systems at Ridge and College Park. The committee suggested that the Treasurer’s office look at the implications of merging the two groups. Ramirez said the Committee also shared concerns about the potential impact of legislative initiatives in the direction of open access and suggested that it might be in the best interest of the Society to measure the real importance and value of journal refereeing, perhaps by initiating benchmarking studies among different subgroups of the APS.

**MOTION:** *That the Council accepts the report of the Audit Committee as presented.*  
(Eisenberg/Bienenstock)

**ACTION:** *Passed unanimously*



**MOTION:** *That the Council approves the Audit Committee's recommendation to retain the firm of BDO Seldman, LLP, as the independent auditor for 2007.*

(Ramirez/Parmenter)

**ACTION:** *Passed unanimously*

### **Report from the Mexican Physical Society (SMF)**

Ramos gave an overview of the structure and activities of the Sociedad Mexicana de Física (SMF) or the Mexican Physical Society which has been promoting physics in Mexico for 56 years. The SMF is a non-profit organization much like the APS with the goals of promoting research and teaching in physics, fostering public interest in science and particularly physics, and encouraging interaction between similar scientific organizations within Mexico and abroad. Ramos said that the SMF has 11 divisions divided by field of physics and currently has three regional sections. The SMF is involved with a number of activities on a national and international level including an annual National Physics Congress; assisting a variety of meetings for divisions, high school physics teachers and public lectures; publishing three journals (*Revista Mexicana de Fisica*, *Bulletin*, and *Ibero American Physics Catalog*); sponsoring Physics Olympiad on a regional, national, Ibero-American, and international basis; sponsoring a national high school physics contest; and, organizing a task force on women in physics. Ramos said that SMF is particularly pleased and already hard at work preparing to host the International Physics Olympiad in Merida, Yucatan, July 11 – 20, 2009 where it is anticipated more than 100 countries will participate. Ramos thanked the APS for inviting the SMF to participate as an advisor to the APS Council and entertained several questions. The SMF web site can be found at:

[www.smf.mx](http://www.smf.mx).

### **Report from the Publisher**

Serene gave a financial summary from journal operations for 2006, stating that results for publication activity were well ahead of budget. He noted a higher-than-expected increase in consortia revenue and the lower-than-budgeted expenses due to new printing contracts that were negotiated after the 2006 budget was prepared. Serene pointed out that subscription revenue continues to be concentrated in the lower three tiers which together account for 85% of total subscription income. Online-only subs grew from 30.82% to 37.25% in 2006. PROLA downloads increased by about 18% and Scitation downloads remained approximately the same as in 2005.

Serene introduced prices for the 2008 journals that have been recommended by the Publications Oversight Committee (POC) and the Executive Board. He described the assumptions and trends that were taken into account to arrive at the proposed prices. He emphasized an aggressive budget estimate of 9.2% increase in consortia revenue requested by the POC as budget estimates in the past have been consistently underestimated. With the proposed prices, the estimated total revenue for 2008 is \$32,916M and a target revenue (5% above estimated revenue) to be \$32,679M.

**MOTION:** *That the Council approves the 2008 APS journal prices as presented.*

(Eisenberg/Bienenstock)

**ACTION:** *Passed unanimously*

## **Report from Washington Office**

Lubell described the personnel currently working at the APS Washington DC office and gave a snapshot of activities of the office, including working on Capitol Hill promoting science and physics in a number of different ways, POPA reports, APS News articles, Capitol Hill Quarterly, maintaining Public Affairs pages of the APS website, and described the anticipated activities of a new media relations person as writing op ed pieces for news outlets, news advisories and leading workshops on science writing for the media.

Lubell gave an overview of science funding events that occurred in the past several months, describing a real crisis that was narrowly averted when all of the appropriation bills died at the expiration of the legislative session in November without being passed into law. Only through extraordinary work by a coalition of influential groups and individuals were most of the funding increases for science research realized in the final Continuing Resolution that was passed when the new Congress convened. Lubell said that the FY08 appropriations in the President's budget maintained the promised increases and support for federal science funding. There still appears to be bipartisan support for these increases although the final breakdown of what will happen with each agency and program will not be known for several months. Lubell also said that Department of Defense (DOD) and the National Aeronautics and Space Administration (NASA) science programs are in much trouble and will continue to be unless their respective administrative officials make science research a priority.

Kadanoff expressed appreciation for the efforts of the Washington Office dealing with the crisis related to the Continuing Resolution for science funding, to the applause of the group.

## **Report from the Treasurer**

Serene gave a report of the final, audited 2006 financial figures for the calendar year 2006. He said income from Operations was a positive \$2.54M, which is \$4.60M over budget. While most of this was the result of Publications revenue, he said all areas of Operation ended up better or very close to budget, both in revenues and expenses. He reported that there were no transfers of funds from Reserves to cover Operating expenses.

Serene presented a proposal for supplemental spending for FY07. He said that this supplemental spending was drafted at the request of the President for new and expanded programs in light of the better than expected financial results in FY06. Items in the supplemental budget included:

- Energy Efficiency Study (\$300K)
- BAPS Scanning and XML Keying (\$280K)
- Press Secretary in DC Office (\$50K)
- Academic-Science Center Workshop (\$60K) FY07 \$10K and FY08 \$50K
- DC and ACP Office Renovations (\$120K)
- PRL 50<sup>th</sup> Anniversary Jump Start (\$50K)
- LHC Awareness Subcommittee of Informing the Public committee (\$30K)
- Additional Outreach Initiatives, (To be specified later, \$80K)

**MOTION:** *That the Council accepts the proposed projects and supporting funding amounts for supplemental spending for FY07. (Kadanoff/)*

**ACTION:** *Passed with two abstentions*

### **Report from Meetings**

Franz reported that the 2007 March Meeting in Denver was very successful and was well attended. She said everyone seemed to like the program and the venue, and will be considered for an APS meeting in a future year. She indicated that the 2007 April meeting about to begin also is shaping up to be a good meeting with between 1,100 and 1,200 people attending. Highlights of the meeting will be two physics results announcements, an exciting public lecture on the physics of NASCAR, talks by the two 2006 Nobel laureates and the Lilienfeld Prize presentation by Lisa Randall.

Franz said that work is going forward to implement the recommendations of the Task Force on the Future of the April Meeting. A discussion will be held with the April Meeting Planning Committee regarding a name change for the meeting and instituting three major themes around which the meeting will be organized. Another recommendation was to encourage outside groups and organizations to join with the meeting. She said it is already confirmed that the American Association of Physics Teachers (AAPT) will join the meeting in 2010 and efforts are underway to coordinate with others.

### **New Prize for Industrial Physicists**

Chodos introduced a proposal to approve a new, biennial prize for industrial physicists. He said this was one of the recommendations of the Task Force on Industrial Physicists. The new prize would be an extension of the existing biennial AIP Industrial Applications Prize, to be presented by the APS on “off years” with a somewhat different focus and criteria than the existing prize. The AIP prize focuses on commercialization of a product while the proposed APS prize would focus on innovative contributions to emerging technology. He said that the AIP prize is supported by yearly donations from General Motors (GM) and preliminary talks with GM have been quite positive for their extending the same support for the APS prize. Chodos said that the Prize and Awards Committee has reviewed the proposal and asked that a small working group of industrial physicists be convened to draft clear and precise criteria for the prize. He stated the Executive Board has also voted to recommend Council approve the establishment of the prize and will oversee the details of its implementation.

**MOTION:** *That the Council approves the establishment of the Industrial Applications in Physics prize as presented, contingent upon obtaining sufficient funding and writing appropriate criteria for the prize. (Jaros/Wolf)*

**ACTIONS:** *Passed unanimously*

### **Constitution and Bylaws Issues**

Franz introduced a proposal to make minor amendments to the APS Constitution. She explained that several years ago, various responsibilities assigned to the Executive Board and to the Council by the Constitution, had been delegated to the Executive Officer by those respective groups in separate resolutions. She said that this delegation of responsibility has worked well

and that it was time to consider amending the Constitution to reflect these current practices: the appointment of a member of each unit nominating committee by the Council; and the approval of the time and place of Unit-organized meetings by the Executive Board.

**MOTION:** *That the Council approves the proposed Constitutional amendments delegating appointment of a member of unit nominating committees and coordinating unit meetings to the Executive Officer. (Bienenstock/Zimmerman)*

**ACTION:** *Passed with one abstention*

Franz re-introduced a proposed to establish a standing Budget Committee. She said the Council had approved the Bylaws amendment at the November 2006 meeting and this was the second and final vote on the amendment.

**MOTION:** *That the Council approves an amendment to the APS Bylaws to establish a standing Budget Committee (Second Vote). (Franz/B. Hammer)*

**ACTION:** *Passed unanimously*

Franz drew attention to the proposed amendments to the bylaws of the Division of Condensed Matter Physics (DCMP) and the Topical Group on Quantum Information (TQI). She said the DCMP Bylaws had not been reviewed and revised for several years and that most of the amendments were to bring the bylaws into compliance with the APS Bylaws and current practices. The amendments to the TQI bylaws were refinements to their original bylaws as the group was organized just a few years ago and now have a better idea of how they would like to function.

**MOTION:** *That the Council approves the proposed bylaws amendments as proposed by the Division of Condensed Matter Physics (DCMP) and the Topical Group on Quantum Information (GQI). (Franz/Balantekin)*

**ACTION:** *Passed unanimously*

## **New Business & Adjournment**

Stuewer stated that the Forum on History of Physics (FHP) will consider amending the FHP bylaws to allow for the election of a graduate student to its executive committee. He requested that an item be placed on the agenda of the November Council meeting for the Council to consider encouraging all APS units to consider amending their bylaws to allow for the election of a graduate student on their executive committees.

The meeting was adjourned by consensus at 3:35PM.

## **Addendum I**

On April 19 an email message was sent to Council members initiating a discussion and vote on a motion to elect Martin Blume to the status of Editor-in-Chief, Emeritus of the American Physical Society. All discussion comments were positive and a vote called for on April 26.

**MOTION:** *That the Council elects Martin Blume to the status of Editor-in-Chief, Emeritus, of the American Physical Society. (Sprouse/Kadanoff)*

**ACTION:** *Passed unanimously with 24 votes counted*

**NEXT COUNCIL MEETING:**

*November 17 - 18, 2007*

Adams Mark Hotel

Denver, Colorado

## Appropriations for Selected Accounts

*As of November 1<sup>st</sup> 2007*

Account	FY05 (\$B)	FY06 (\$B)	FY07 (\$B)	FY08 (\$B)		
				<i>Request</i>	<i>House</i>	<i>Senate</i>
DOE Office of Science	3.57*	3.47*	3.80	4.40 (+15.8%)	<b>4.52 (+18.9 %)</b>	4.50 (+18.3%)
DOE Renewables	--	1.16	1.46	1.23 (-15.6%)	<b>1.90 (+30.1 %)</b>	1.71 (+17.1%)
NSF	5.48	5.59	5.92	6.43 (+8.8%)	<b>6.51 (+9.9 %)</b>	<b>6.55 (+10.6%)</b>
NIST Core**	0.40	0.438	0.492	0.594 (+20.0%)	<b>0.63 (+28.0%)</b>	<b>0.653 (+32.0%)</b>
NIST STRS	0.37*	0.39*	0.43	0.501 (+16.5%)	<b>0.501 (+16.5%)</b>	<b>0.502 (+16.7%)</b>
NIST CRF	0.03	0.048	0.059	0.094 (+59.3%)	<b>0.129 (+118.6%)</b>	<b>0.151 (+155.9%)</b>
NIST ATP	0.14	0.08	0.08	0 (-100.0%)	<b>0.093 (+17.7%)</b>	<b>0.092 (+16.5%)</b>
DOD 6.1	1.49	1.47	1.54	1.42 (-7.8%)	<b>1.55 (-0.7%)</b>	<b>1.56 (-0.2%)</b>
DOD 6.2	4.79	5.17	5.21	4.36 (-16.3%)	<b>5.08 (-4.7%)</b>	<b>4.65 (-12.7%)</b>
NASA Science	5.50	5.25	5.25	5.52 (NA)***	<b>5.70 (+4.2%)</b>	<b>5.66 (+3.5%)</b>

**Bold Text** stands for passed in the full House or Senate chamber.

\* - Adjusted for Congressionally Mandated Programs (or Earmarks)

\*\* - NIST Core contains both NIST STRS and NIST CRF.

\*\*\* - New budget structure; comparison with previous years is not appropriate.

NIST Acronyms: STRS - Scientific and Technical Research; CRF - Construction of Research Facilities; ATP - Advanced Technology Program

# Archiving & dissemination of fluid dynamics videos

## Final Report APS-DFD Publications & Media Committee

October 2007

*DRAFT*

### Committee Members

Detlef Lohse, Chair, Twente, The Netherlands

Jean Hertzberg, Vice-Chair, Colorado

Aline Cotel, Michigan

Eberhard Bodenschatz, Göttingen, Germany

John Bush, MIT

Karen Flack, US Naval Academy

Scott Morris, Notre Dame

Andy Cook, LLNL

### Problem to be addressed

The problem concerns the archiving and dissemination of videos on fluid dynamics, especially those submitted to the Gallery of Fluid Motion (GFM) at the Annual DFD Meetings. Each year there are many submissions, only a fraction of which are put on the AIP web site as part of the Physics of Fluids special issue on the GFM. The remainder are essentially lost, even though they may have substantial value to research and education (at different levels).

In addition to the GFM submissions, there are many fluid dynamics videos produced from research projects and for educational purposes, and yet there does not appear to be an effective means for archiving and disseminating these to the wider community.

## Different aspects of the problem

The committee views archiving and dissemination of the videos to be two different (but related) problems and will therefore address them separately.

### Archiving

1. Videos can be archived now at eCommons@cornell.edu (<http://ecommons.library.cornell.edu>), which is a digital repository run by Cornell University Library. The author goes to a web site and uploads his or her videos, and receives an email giving a URL for the submission, and a URL for the bit stream of each video. The use of eCommons is merely a base level repository where the videos can be stored and given a permanent URL. It is not meant to be the place where a user goes to search for these materials.
2. Cornell University Library is willing to archive all legitimate fluid dynamics videos indefinitely with fixed URLs.
3. arXiv.org has become the standard place for electronic archiving of papers (<http://arXiv.org>). This also holds for papers on fluid dynamics (<http://arXiv.org/list/physics.flu-dyn>). In order to make the videos on eCommons easily accessible and searchable to the general public, we therefore suggest that authors should submit a one-page note on the video to arXiv.org, (i) adding “fluid dynamics video” in the “contents” metadata, (ii) adding “fluid dynamics video” in the abstract, and (iii) adding links to the URLs of the video bit streams. In this way subsequent searches facilitated. Links to the archived videos can be created using PDF Latex and the hyperref package.
4. Readers can then go to arXiv.org and search for “fluid dynamics videos” with or without other search criteria. They can then view the video in the arXiv paper. They can also see the URL of the bit stream, and hence use it directly, e.g., by downloading it or linking to it. arXiv.org has the additional advantage that it is mirrored to several other servers in Europe and Asia.



## **Submissions to the APS-DFD Gallery of Fluid Motion**

The submission rules for the Gallery of Fluid Motion should be modified, making use of above described electronic infrastructure eCommons/arXiv. This procedure would ease the task of the local organizers of the Gallery of Fluid Motion at the APS-DFD meetings. He or she would then only require the eCommons URL or/and the arXiv code of the participating videos.

## **Dissemination**

Proper archiving (e.g. along the ideas suggested in the previous sections) is a pre-condition for good dissemination.

In recent years, efluids.com has played an increasing role in the dissemination of information about fluid dynamics. At present, neither efluids.com nor the Division's own website have extensive Video Galleries. However, efluids.com, together with Bud Homsy and Jim Duncan, are undertaking the creation of a new Video Gallery, described below. We recommend that links to arXiv.org are introduced both at efluids.com and the APS-DFD webpage.

Another popular way of dissemination of videos is YouTube. This holds in particular for young people such as high-school students who should be reached by our dissemination effort. There are wonderful examples for fluid dynamics videos on YouTube, including some of the winning entries of the APS-DFD Gallery of Fluid Motion. In the guidelines for the GFM submissions a paragraph should be included, encouraging the scientists to submit their entries also to YouTube to enhance dissemination. These videos should be tagged with the key-word "fluid dynamics", in order to ease finding them.

## **Consequences of the Gallery of Fluid Motion at Phys. Fluids**

From the committee's point of view there are *no* consequences for the Gallery of Fluid Motion at Physics of Fluids (<http://pof.aip.org/pof/gallery>). At that webpage the five (per year) winning entries of the APS-DFD GFM are archived and freely available. In addition, a one page explanation (per winning entry) is given which is also printed in the September issues of Phys. Fluids. These entries are therefore citable via Phys. Fluids. The high scientific (and artistic!) standard is guaranteed through "refereeing" (GFM-jury).

The only consequence of the suggested video submission procedure is that a raw-version of the winning GFM video archived at Phys. Fluids has then already been archived in eCommons/arXiv.org and possibly in YouTube. But this double-arXiving is already common practice for most scientific papers and is not considered to be a problem.

## **effluids.com Fluid Dynamics Video Gallery**

Bud Homsy, Jim Duncan, and Lex Smits are currently assembling videos from past GFM entries, as well as other sources within the community, and are creating a Video Gallery to be hosted on effluids.com. Lex Smits have agreed to fund the initial effort. The members of this Committee have seen a two page prototype: the presentation will be very high quality, with video thumbs arrayed in an attractive gallery format and all material organized by some standard sorting categories. Each video will be accompanied by 50-150 words of explanatory text, together with literature references and links. The Committee looks forward to seeing an implementation of this in the near future. We consider it complementary to an archive, and feel that all forms of dissemination should be pursued. This effort clearly is at the very high-quality end of the spectrum.

### **Actions to be taken**

- Ask Steve Pope to work with Cornell University Library and the present committee to develop the web interfaces, instructions, examples, etc., to make the system as user-friendly as possible for authors and readers.
- Encourage (by e-mail) authors of the winning videos of the last years to submit their old videos to eCommons/arXiv.org, in order to create some starting mass.
- Renew guidelines for GFM submission:
  - Submission only via eCommons/arXiv.org
  - Encourage dissemination through both effluids and YouTube
- Links at effluids.com and at the APS-DFD webpage to arXiv.org fluid dynamics, encouraging colleagues to submit videos there.

## Report on the 2007 APS/DFD Nominating Committee

The members of the 2007 APS/DFD Nominating Committee were:

Roger Bonnecaze (12/07), <b>Chair</b>	UT Austin
Patrick Weidman (12/08), <b>Vice-Chair</b>	Colorado
Sivram Gogineni (12/07)	Innovative Scientific Solutions
Alan Kerstein (12/07)	Sandia National Laboratory
Michael Schatz (12/07)	Georgia Tech (Physics)
Minami Yoda (12/08)	Georgia Tech (ME)
Lance Collins (12/08)	Cornell
Tom Solomon (12/08)	Bucknell
Jim Grotberg (12/07) (APS appointee)	Michigan

The committee sought nominations for the members-at-large and vice-chair positions. Those nominated for the members-at-large positions are:

Laurette Tuckerman  
Anette Hosoi  
Manoochehr Koochesfahani  
Dan Lathrop

Those nominated for the vice-chair position are:

Bob Behringer - bob@phy.duke.edu  
Juan Lasheras - jlasheras@ucsd.edu

All the nominees agreed to be nominated and to serve if elected.

Roger Bonnecaze, chair  
November 7, 2007

## Report on the 2007 Fluid Dynamics Prize Committee

The members of the 2007 APS Fluid Dynamics Prize Committee were:

Elaine Oran (12/07), <b>Chair</b>	Naval Research Laboratory
Martin Maxey (12/08), <b>Vice-Chair</b>	Brown
Tom Lundgren (12/07)	Minnesota
Tom Mullin (12/07)	University of Manchester
Dan Lathrop (12/08)	U. Maryland
Gareth McKinley (12/08)	MIT

There were 14 nominations for the prize: 2 carried over from the previous year and 12 fresh nominations.

After due deliberation, the committee selected Guenter Ahlers to receive the prize. The citation is:

*“For pioneering experimental work on fluid instabilities, low-dimensional chaos, pattern formation, and turbulent Rayleigh-Bénard convection”*

Elaine Oran, Chair  
November 7, 2007

## Report on the 2007 APS/DFD Frenkiel Award Committee

The members of the 2007 APS/DFD Frenkiel Award Committee were:

Eckart Meiburg (12/07) , <b>Chair</b>	UCSB
Sandra Troian (12/08) , <b>Vice-Chair</b>	Caltech
Marc Femigier (12/07)	ESPCI, Paris
Ann Karagozian (12/07)	UCLA
Zvi Rusak (12/08)	RPI
Manoochehr Koochesfahani (12/08)	Michigan State
Michael Graham (12/08)	Wisconsin

There were 45 papers eligible to be considered for the award. After due deliberation, the committee selected the paper

“First and second-type self-similar solutions of implosions and explosions containing ultrarelativistic shock waves” by Re'em Sari.

The citation for the award is:

“For the elegant derivation of similarity solutions describing the propagation of ultrarelativistic shock waves”

Eckart Meiburg, chair  
November 7, 2007

July 2, 2007

Professor Stephen B. Pope  
Chair, Executive Committee  
Division of Fluid Dynamics  
American Physical Society (Via E-Mail)

Dear Steve:

The Selection Committee for the 2007 Andreas Acrivos Dissertation Award in Fluid Dynamics conducted its deliberations through a secure "Google Groups" site set up for the purpose and through a telephone conference call on 06/26/07. The Selection Committee consists of myself as Chair, Paul H. Steen as Vice Chair, Todd Squires, Patrick Tabeling, Mark Shattuck, Wendy Zhang and Fabian Waleffe.

Nine nominations were received; one of the candidates was a repeat nomination from the previous year. Initially each member of the committee examined all nine nomination packages and submitted a brief review with a numerical score. Based on this review, the field was narrowed to three finalists. Committee members with any potential "conflict of interest" or appearance of such recused themselves from any evaluation of the respective nominee at all stages of the deliberations. Subsequently, each committee member reexamined each of these three selected submissions and discussed them over a telephone conference call. Prof. Tabeling and Zhang could not participate in the conference call but submitted their views in writing by posting to the Group site. On the basis of these deliberations the committee selected Dr. David Saintillan as the recipient of the 2007 Acrivos Dissertation Award.

Dr. Saintillan performed his Ph.D. research at Stanford University under the joint supervision of Professors Eric Shaqfeh and Eric Darve. His thesis was entitled "Collective dynamics in dispersions of anisotropic and deformable particles." In his thesis Dr. Saintillan has developed powerful new algorithms for studying long range hydrodynamic interactions in complex fluids such as suspensions, colloids and polyelectrolytes. These new methods have brought into the realm of computational feasibility new classes of problems in complex fluids. In particular, in his thesis work Dr. Saintillan presented a masterful exposition of the following classes of problems using a combination of analytical and numerical techniques: (a) sedimentation of orientable particles (b) sedimentation of deformable particles (c) induced charge electrophoresis of rod like particles (d) interaction of short polymers with shear flow. The committee found Dr. Saintillan's work most impressive in its depth and breadth and his extremely well written thesis was a pleasure to read. We congratulate Dr. Saintillan for receiving this award and we congratulate his advisors Professors Shaqfeh and Darve for supervising an outstanding thesis.

For the 2007 Acrivos Dissertation Committee\*,  
Sandip Ghosal (Chair)

\*The 2007 Acrivos Dissertation Committee: Sandip Ghosal (Chair), Paul H. Steen (Vice Chair), Todd Squires, Patrick Tabeling, Mark Shattuck, Wendy Zhang, Fabian Waleffe.

## 2007 Program Committee XCom report

### 1. Future Meetings

The meeting schedule is currently as follows:

2008	San Antonio (Sharath Girimaji)
2009	Minneapolis (Krishnan Mahesh)
2010	Long Beach (Julian Domaradzki)
2011	Baltimore (Andrea Prosperetti)

It is time to solicit proposals for the 2012 meeting. It should probably be a west coast or central site, with a preference for a west coast site.

### 2. March Meeting

DFD has, for the first time, two invited sessions at the March APS Meeting.

The session “**The Physics of Climate and Climate Change**” was organized by John Wettlaufer (Yale), and will feature

- Dan Rothman “The Physics of the Global Carbon Cycle”
- Brad Marston “The Quantum and Fluid Mechanics of Global Warming”
- Annalisa Bracco “Geostrophic turbulence and the stability of global climate models”
- Antonello Provenzale “Heat waves, climate change and eggplant harvests -- simple models of climate systems”, and
- Stephen Griffies “Physical Problems in Modeling the Global Ocean”

The session “**Fluid Dynamics and Biology**” was organized by Ray Goldstein (DAMTP), and will feature

- Charles Wolgemuth, “Depolymerization-driven flow and the crawling of nematode sperm”
- Peko Hosoi, “TBA”
- David Saintillan “Instabilities and Pattern Formation in Active Suspensions”
- Roman Stocker, “Microfluidic insights into microbial life: microscale processes with global implications”
- Silas Alben “Optimal flexibility in flapping appendages”

DFD will also host or co-host the following focus sessions:

- Granular Flows (DFD/GSNP). Lead taken by GSNP.
- Collective Dynamics of Self-driven Particles (DFD/GSNP). Lead taken by GSNP.
- Rheology and Hydrodynamics of Wormlike Micellar Fluids (DFD). Organizer: Andrew Belmonte. Invited speaker: Paul Callaghan.
- Fluid Dynamics of Animal Motion (DFD/DBP). Lead taken by DFD. Organizer: Kenny Breuer. Invited speaker: John Dabiri.

- Characterizing Spatio-Temporal Complexity in Fluids and Materials (DFD). Organizer: Eberhard Bodenschatz. Invited speaker: Haitao Xu.
- Colloids (DFD). Organizer: David Weitz. Invited speaker: Johan Mattsson.
- DNA & Protein Analysis with Micro & Nano-Fluidics (DBP/DPOLY/DFD). Lead taken by DFD. Organizer: Dorian Liepmann. Invited speaker: Susan Muller.
- Cytoskeletal Dynamics and Motility (DBP/GSNP/DPOLY/DFD). Lead taken by DBP.
- BioChip Physics: Scalability and Fundamental Detection Limits. Lead taken by DBP.

The Sorters Meeting for MAR08 will be held at the APS headquarters in College Park on December 7 and 8, 2007. Jim Wallace has agreed to be the team leader, and he will be joined by Daniel Blair from Georgetown, Jeff Morris from CCNY, and Wolfgang Losert.

### 3. San Antonio Invited Speakers

The program committee has come to an agreement with the LOC headed by Sharath Girimaji on the (initial) list of invited speakers for the 2008 meeting.

Submitted by Lex Smits November 11, 2007, on behalf of the 2007 Program Committee:

Lex Smits (chair) [asmits@princeton.edu](mailto:asmits@princeton.edu)  
 Andrew Belmonte [belmonte@math.psu.edu](mailto:belmonte@math.psu.edu)  
 Melany Hunt [hunt@caltech.edu](mailto:hunt@caltech.edu)  
 David Kassoy [david.kassoy@colorado.edu](mailto:david.kassoy@colorado.edu)  
 Wolfgang Losert [wlosert@umd.edu](mailto:wlosert@umd.edu)  
 Richard Lueptow [r-lueptow@northwestern.edu](mailto:r-lueptow@northwestern.edu)  
 Jim Riley [rileyj@u.washington.edu](mailto:rileyj@u.washington.edu)



## Report of the Fellowship Committee

by Phil Marcus

The thirteen newly elected Fellows for 2007 are:

Lance Collins, Rodney Fox, Sharath Girimaji, Peyman Givi, Mark Glauser, Ari Glezer, Yoshifumi Kimura, Robert Krasny, Ellen Longmire, Gareth McKinley, Michael Shelley, Pushpendra Singh, Stavros Tavoularis.

These include 2 international members. There were a total of 29 nominations this (down from 34 last year), of which 8 were *deferred* (carryovers) and 21 were new.

Although the actual work of selection of Fellows by the Committee went smoothly, there were technical problems associated with the new, electronic, web-based nomination and evaluation process set up by the APS. **The incoming Chair of the Fellowship Committee (and Vice-Chair of the DFD) should be aware of these problems, anticipate new ones, and work with the College Park office of the APS to get them fixed.** Our Committee suspects that the decrease in the number of nominations this year was, at least in part, due to the difficulties of the web-based nomination. In some cases information could not be uploaded by either the principal nominator or by those supplying supporting letters. Aside from anecdotal evidence (including those experience by the Chair of this Committee attempting to support a Fellowship nominee from another Division), the facts that there were redundant or partially redundant files on 3 of the nominees and that 2 of the files of other nominees were incomplete suggest that people had difficulties using the web-based system. Difficulties with the system led the APS to extend the nomination deadline. Furthermore, difficulties with the system caused a delay of almost a month before the Committee received (via web-based access) the nominees' files.

The Committee worked under a short deadline to turn in our nominations to the full APS ExecComm in time for their annual meeting so that they could act on our nominations. However, that meeting and a decision on our nominations occurred almost after the date we were told that they would happen. The late decision by the APS ExecComm almost caused the DFD to miss the deadline for having the Fellows' names published in the APS Bulletin for the Annual Meeting. **Our Division Councilor should be aware of this fact and press the APS ExecComm for a timelier meeting and decision on our Fellowship nominees.**

Phil Marcus (Chair)

Nadine Aubry (Vice-Chair)

D. Scott Stewart

Annick Pouquet

Jean-Pierre Hulin

S. Balachandar

Sutanu Sarkar

## **APS/DFD External Affairs Committee**

### Summary Report for the November 2007 DFD Executive Committee Meeting

Werner Dahm, Chair (12/07)  
Kimberly Hill, Vice-Chair (12/08)  
Jim Brasseur (12/08)  
Mike Plesniak (12/09)  
Jane Wang (12/09)  
John DeBruyn (12/09)  
Shiyi Chen (12/09)

This year the External Affairs Committee performed three principal tasks:

- 1) The Committee again oversaw selection and distribution the Travel Award Subsidy Grants for the DFD Annual Meeting. We made some improvements in the application and selection procedure this year. Based on our experience last year, a new application form was developed and used. This provided more information about the applicant's need, whether they were giving a presentation, whether they had previously received such a grant, whether there were multiple applicants from the same group, etc. The subsidy levels also changed to make better use of the available funds and better match the subsidy levels to the applicant needs.

The External Affairs Committee Vice-Chair, Kimberly Hill, oversaw most aspects of the selection process as well as follow-on actions needed to provide recipients with their award checks. The local organizing committee collected applications and sent these to the External Affairs Committee. We then selected recipients based on individual rankings of applicants, and forwarded the awardee names to the local organizing committee and to the DFD Treasurer. Kimberly also sent out and collected the W-8/W-9 IRS forms from awardees. Grant checks are to be given to awardees on-site at the registration desk, with limited check cashing service arranged by the local organizing committee.

The check cashing arrangements are important for awardees from countries where it is difficult to cash a US check upon return, however this part of the process caused considerable difficulties for the local organizing committee. It is recommended that check cashing at future meetings be limited to awardees with clear needs.

- 2) The Committee initiated a new project to produce T-shirts designed to promote awareness of and interest in fluid dynamics, to be given free of charge to students attending the student lunch, with the remainder to be sold at-cost at the DFD Annual Meeting. The Executive Committee approved this idea at the Spring telecon, and provided funds to produce 540 T-shirts for this year's meeting. If the project is a success this year, it is anticipated that it will be continued in future years, and may

provide one of several substantive ways that the External Affairs Committee can help promote broader interest in fluid dynamics.

The artwork and text on the T-shirts are not supposed to be connected with the Annual Meeting itself, and the shirts are not meant to be “souvenirs” from the meeting. Instead, the shirts are meant to communicate the idea that fluid dynamics is technical, interesting, and beautiful. Having students and other meeting attendees wear these shirts on their home campuses and in the general public may help create awareness of and interest in fluid dynamics, especially in the broader academic community.

Nonproprietary artwork and a tagline were developed for the project in a style intended to meet the goals of the project. Several T-shirt production shops in the Ann Arbor area were contacted for production options and price quotes; local production was viewed as essential to oversee production quality. Final cost of producing the 540 shirts and shipping them to the Salt Lake City Convention Center was \$4063.48. A 2-3% credit card processing charge must be added to each credit card purchase, bringing the sale price to \$7.75 per shirt. Arrangements for displaying and selling these shirts were made with the local organizing committee.

- 3) The DFD Executive Committee tasked the External Affairs Committee with forming an Ad Hoc Subcommittee on Fluid Dynamics Funding, to look into ways to increase funding in fluid dynamics and report back to the XC. I asked Jim Brasseur and Mike Plesniak to take on this task. They are currently working with Lex Smits on this, and have posted a questionnaire on the DFD website to collect information on recent funding levels and trends.

After serving two years as Chair of the External Affairs Committee, Werner Dahm will retire as Chair after the DFD Annual Meeting in November, and Kimberly Hill will assume the role of Chair.

Werner J.A. Dahm  
Chair, External Affairs Committee

TO: APS/DFD ExCom  
FROM: John Foss, USNCTAM Rep.  
RE: Current Interests  
DATE: 9 November 2007

This is a brief report on USNCTAM matters of possible interest to the APS/DFD ExCom members. (US National Committee for Theoretical and Applied Mechanics; USNCTAM is a creature of the National Academies and one can Google USNCTAM for a complete description – USNC/TAM deals with matters related to both solid and fluid mechanics. Fifteen national societies are represented on USNC/TAM whose members are generally either Members at Large or representatives of the adhering societies. APS/DFD has been a very active member society.)

Preparations for the ICTAM 2008 (24-30 June, Adelaide, Australia) is a current focus of the committee. Travel fellowships (\$2,500) will be available. Applications can be filed up to 31 January 2008; the focus is to support early career faculty from the US. Details available through Google.

The USNCTAM actively solicits funds (NSF, ONR, AFOSR, etc.) to support these travel grants.

IUTAM approved symposia in the US are initiated by application to the USNCTAM. (USNCTAM then selects those recommended to IUTAM and IUTAM makes the final decision). These provide a “professional society independent” certification process for a technical meeting.

IUTAM symposia are currently scheduled: e.g., *150 Years of Vortex Dynamics*, Lyngby, Denmark, October 12 - October 17, 2008, Symposium Chairman: Prof. H. (Hassan) Aref.

SCORDIM (Special Committee on Research Directions in Mechanics) is a subcommittee of USNCTAM who encourages individuals, or groups, to produce reports on research directions in mechanics. The Fluid Dynamics report was available in 2006 (the first across the finish line for the current round) and one for computational mechanics was recently released. (Available via Google).

Other fluid dynamics persons on the UNCTAM include:

Nadine Aubry, Chair  
John Brady, Member at Large (MAL)  
Lance Collins, MAL  
Michael Graham, Society of Rheology  
Jonathan Higdon, AIChE  
Andreas Acrivos, Ex-Officio  
Hassan Aref, Ex-Officio  
L. Gary Leal, Ex-Officio

Note, Nadine Aubry provided useful comments and additions for the initial draft of this report.

JF2902JB

## FLUID DYNAMICS IN PHYSICAL REVIEW LETTERS AND PHYSICAL REVIEW E

Bruno Eckhardt\*(PRE), Ling Miao\* (PRL), Dirk Jan Bukman (PRE), Saad E. Hebboul (PRL)

November 17, 2007

Physical Review Letters and Physical Review E publish papers on Fluid Dynamics. In **Physical Review Letters** they are collected in both the section *Nonlinear Dynamics, Fluid Dynamics, Classical Optics, etc.*, and the section *Soft Matter, Biological, and Interdisciplinary Physics*. In **Physical Review E** there is an explicit Fluid Dynamics section, and papers may also appear in a number of related sections. The journals focus on fundamental aspects, and are particularly attractive to authors who wish to publish on topics with connections to neighboring areas of activity, such as granular flows, statistical physics, or biological phenomena.

**Publication Format:** Physical Review Letters and Physical Review E offer a variety of formats:

- **Physical Review Letters** publishes **four page Letters** that are of significant novelty, outstanding importance to their respective field(s), and of broad interest or impact; **weekly issue; 80 Letters**.
- **Physical Review E** features **Rapid Communications** for important new results addressing a more focused audience; **Regular Articles** with enough space to cover a problem in more depth; and **Brief Reports** of short pieces of completed research; **monthly issue; 200 papers**.

### Relevant Editors and members of the Editorial Board:

#### PRL Editors (APS Editorial Office)

Saad E. Hebboul  
 Ling Miao  
 Jane Throwe  
 Deniz van Heijnsbergen  
 Reinhardt B. Schumann (Managing Editor)

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 Bruno Eckhardt (Philipps-Universität Marburg-since June 2007; *Fluids*)  
 Brant M. Johnson (Brookhaven National Laboratory; *Plasmas*)

#### Editorial Board members

Guenther Ahlers  
 Daniel Bonn  
 Alan Kerstein  
 Detlef Lohse  
 Oleg Schilling



### Publication Statistics:

	Receipts		Acceptance		Mean processing times	
	Total	"Fluids"	Total	"Fluids"	Rcpt → Accept	Accept → Publ
<b>PRL</b> (2006)	10724	339	3389 (32%)	115 (34%)	117	36
<b>PRE</b> (2006)	4115	299	2252 (55%)	174 (58%)	130	45

**Submission growth (Fluids):** around 10% a year.

(\*) Bruno Eckhardt and Ling Miao will be attending the Division's executive meeting.

## Additional Services to Authors and Readers and Enhancements of Publications:

- On line publication before printing.
- Color figures online: **free of charge**.
- **PRL Editors' Suggestions:** Since January 2007, the editors of PRL suggest to readers a few papers every week in order to promote reading across fields (see examples in the attached list of sample publications). 
- **Physical Review Focus:** a free online service that publishes a weekly story about an article selected from Physical Review Letters or Physical Review; Focus stories reach a very broad readership. (Please see <http://focus.aps.org>.) 
- **PRL cover figure:** every weekly issue of PRL prints on its cover a color figure selected from an article in the issue on the basis of aesthetics; complimentary, laminated copies of the cover print for authors.

## New in 2008:

- **RSS feeds:** RSS feeds provide topic-specific and rapidly updated lists of publications, delivered directly to your internet browser or desktop. (See <http://feeds.aps.org>.)
- **PRL's 50<sup>th</sup> anniversary:** PRL will celebrate its 50th birthday; watch for additional content and new features to mark this golden anniversary in 2008.

## Your Input: Feedback and Suggestions

Naturally, both Physical Review Letters and Physical Review E would like to strengthen their representation of research in Fluid Dynamics and increase their visibility to the community by attracting and publishing significant papers in the field, and by enhancing the impact of those papers through a modern and multi-dimensional delivery process. It will be of great help to the journals if you could provide your feedback on our current services and your suggestions for improvement in the future.

- **How do we make our editorial handling more informed and efficient?**
  - Should we set, in a dynamic and subfield-specific way, high publication standards and maintain them? If yes, how do we do that?
  - We would like to enlist the service of more referees with pertinent expertise in Fluid Dynamics, in particular, those who are junior researchers. What are the best ways to do that?
  - Other suggestions you may have?
- **How can we better deliver our publications to the community?**
  - How do we draw the attention of the community quickly to best published papers in the field? How do we raise the visibility, to a readership broader than the Fluid Dynamics community, of outstanding papers from the field that deserve such wider dissemination?
  - The RSS-feeds service delivers topic-specific lists of publications directly to you. What topics do you suggest as good representatives of research in the rather broad and diverse field of Fluid Dynamics?

## Some highlights of articles published in 2005-2007:

### Physical Review Letters:

- *Boundary slip on smooth hydrophobic surfaces: Intrinsic effects and possible artifacts*

C. Cottin-Bizonne, B. Cross, A. Steinberger, and E. Charlaix

Phys. Rev. Lett. 94 (5): Art. No. 056102 FEB 11 2005

- *Transport and collective dynamics in suspensions of confined swimming particles*

Juan P. Hernandez-Ortiz, Christopher G. Stoltz, and Michael D. Graham

Phys. Rev. Lett. 95 (20): Art. No. 204501 NOV 11 2005

- *Giant bubble pinch-off*

Raymond Bergmann, Devaraj van der Meer, Mark Stijman, Marijn Sandtke, Andrea Prosperetti, and Detlef Lohse

Phys. Rev. Lett. 96 (15): Art. No. 154505 APR 21 2006.

- *Generation of a magnetic field by dynamo action in a turbulent flow of liquid sodium*

R. Monchaux, M. Berhanu, M. Bourgoin, M. Moulin, Ph. Odier, J.-F. Pinton, R. Volk, S. Fauve, N. Mordant, F. Pétrélis, A. Chiffaudel, F. Daviaud, B. Dubrulle, C. Gasquet, L. Marié, and F. Ravelet

Phys. Rev. Lett. 98 (4): Art. No. 044502 JAN 26 2007.



- *Capillary Origami: Spontaneous wrapping of a droplet with an elastic sheet*

Charlotte Py, Paul Reverdy, Lionel Doppler, José Bico, Benoît Roman, and Charles N. Baroud

Phys. Rev. Lett. 98 (15): Art. No. 156103 APR 13 2007



### Physical Review E:

- *Three-dimensional flow structures and dynamics of turbulent thermal convection in a cylindrical cell*

Chao Sun, Ke-Qing Xia, and P. Tong

Phys. Rev. E 72, 026302 (2005) (13 pages)

- *Two-dimensional flow of foam around an obstacle: Force measurements*

Benjamin Dollet, Florence Elias, Catherine Quilliet, Christophe Raufaste, Miguel Aubouy, and François Graner

Phys. Rev. E 71, 031403 (2005) (11 pages)

- *Effects of compression on the vibrational modes of marginally jammed solids*

Matthieu Wyart, Leonardo E. Silbert, Sidney R. Nagel, and Thomas A. Witten

Phys. Rev. E 72, 051306 (2005) (11 pages)

- *Metastable liquid-liquid coexistence and density anomalies in a core-softened fluid*

H. M. Gibson and N. B. Wilding

Phys. Rev. E 73, 061507 (2006)

- *Dynamics of DNA tumbling in shear to rotational mixed flows: Pathways and periods*

Joo Sung Lee, Eric S. G. Shaqfeh, and Susan J. Muller

Phys. Rev. E 75, 040802(R) (2007) (4 pages)