

Executive Committee Meeting
6:00 pm, November 18, 2006
Meeting Room 9 at the Tampa Marriott Waterside Hotel

Attendees: Jerry Gollub, Howard Stone, Steve Pope, Lex Smits, Harry Swinney, Jim Duncan, John Foss, Gretar Tryggvason, Werner Dahm, Paul Steen, Minami Yoda, Monica Malouf, Ken Kiger, Tony Ladd, Pat McMurtry, Sharath Girimaji, Krishnan Mahesh, Phil Marcus, Ellen Longmire, Martin Maxey, Jean Hertzberg, Gary Leal, Rich Lueptow, Bill Schultz, Charles Meneveau, Geoff Spedding

Decisions

- The 2009 meeting will be held in Minneapolis.
- The Guidelines for Minisymposia as printed in the fall news letter and appearing in Appendix G were approved.

Action Items

- Check on number of chairs available at future meeting sites.
- Decide on registration fees for Salt Lake City meeting.
- The Program Committee chaired by Lex Smits is to review the meeting sorting categories and suggest changes for the coming year.

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1. Opening remarks by Howard Stone
 - a. Introduction of newly elected members.
 - i. Phil Marcus, Vice-Chair
 - ii. Ellen Longmire, Secretary Treasurer
 - iii. Jim Brasseur, Councilor
 - iv. Martin Maxey, Member at Large
 - v. Jean Hertzberg, Member at Large
 - b. Attendance at the APS Units convocation was encouraged.
 - c. The committee was reminded to encourage DFD members to nominate others for fellowships and prizes. In particular, the 2006 DFD Prize committee reported that there will be few carry-over nominations from 2006 to 2007.
 2. Meeting Proposals
 - a. 2009 Minneapolis, Minnesota. Krishnan Mahesh (see report in Appendix A)
 - i. Hotel contract has been negotiated.
 - ii. Planning for 1200 attendees.
 - iii. The organizers were encouraged to think more carefully about the arrangements for the placement of the Gallery of Fluid Motion and the Exhibitors. The present plans seemed less than ideal.
 - iv. The number of hotel rooms was discussed but found to be adequate.
 - v. The executive committee approved the plans for the 2009 meeting to take place in Minneapolis but encouraged the organizers to think carefully about movement of attendees between sessions held on

different floors and the placement of the Gallery of Fluid Motion and the Exhibitor Hall.

- b. 2010 Long Beach, California. Geoff Spedding (see report in Appendix B)
 - i. The meeting would take place in the convention center which is nearly attached to the hotel.
 - ii. Committee members suggested that we should ask for a room rate reduction because of the need to rent the convention center rather than use the meeting rooms in the hotel.
 - iii. The committee asked if the Long Beach committee would consider holding the meeting in 2011 rather than 2010. This question was not answered.
 - c. 2010, Baltimore, Maryland: Charles Meneveau (see report in Appendix C)
 - i. The hotel room rate of \$175 was noted as being rather high. It was also noted that this rate was an advertised rather than a negotiated rate.
 - ii. The size of the meeting rooms was discussed. There was some concern that there might not be enough rooms with capacity greater than 80. This problem might be remedied by removing temporary barriers between rooms.
3. Discussion of Proposals for 2009 and 2010 Meetings
- a. It was decided to hold the 2009 meeting in Minneapolis
 - b. The cost of using the Long Beach Convention center (\$46,000) for the Long Beach meeting was discussed as well as the rather high room rate at the Hyatt (\$196.00/day)
 - c. It was noted that these rates had not been negotiated yet and that we might get a room rate discount because the hotel does not have sufficient meeting room space to hold the meeting, thus incurring the rental cost for the convention center.
 - d. Meeting room capacity in Baltimore was discussed. Some rooms seemed small, but this might be fixed by opening movable walls.
 - e. It was noted in a positive light that the Baltimore meeting would be held in the hotel, thus not incurring a charge for rental of another space.
 - f. It was decided to request more information from the Baltimore and Long Beach committees and to ask Monica Malouf and, hopefully, a DFD representative to visit both meeting sites.
4. Report on 2006 Meeting in Tampa. Tony Ladd (see Appendix D)
- a. One issue that should be explored for future meetings is the number of chairs available at the meeting site. Tony found that there were only 2100 chairs available in the hotel. There are now at least 85 chairs in every room. In the invited talks there are not as many chairs as we would like.
 - b. Found that the advertised meeting room capacity was overestimated by the hotel.
 - c. There were about 1300 abstracts submitted for the meeting; more than any meeting but Chicago which had 1440.
 - d. We have 1220 pre-registered participants. Based on past history we expect between 100 and 200 onsite registrations, so we are projecting a total attendance around 1370.

- e. The projected budget indicates that meeting will be close to breaking even.
 - f. Tony made a number of suggestions for future meetings. These can be found in Appendix D.
 - g. The Executive Committee thanked Tony and the local organizing committee for all their hard work and a very successful meeting.
5. Report on the 2007 meeting planned for Salt Lake City. Pat McMurtry (Appendix E)
- a. Pat asked if the registration fees would be increased from their present levels. After the meeting, the transcript of the Spring meeting of the DFD Executive Committee was reviewed and it was found that no decision was made on the registration fee at the Salt Lake City meeting. This item is thus moved to action items.
 - b. With last year's registration fees, it looks like the budget will break even assuming 1300 attendees.
 - c. Planning on 20 parallel sessions.
 - d. Web site is ready to go and can be viewed at dfd2007.eng.utah.edu
6. Report on the 2008 meeting planned for San Antonio. Sharath Girimaji (See Appendix F)
- a. Meeting to be held in San Antonio Convention Center (contract finalized).
 - b. Two Marriotts are close by with room rates of \$142 per night for single or double occupancy.
 - c. Reception to be held on grounds of convention center.
 - d. Plan to have website up by January 2007.
 - e. Early estimates indicate a less expensive meeting than other recent meetings due to nearby reception.
7. Monica Malouf (Professional meeting organizer and owner of Meetings and More who has worked with the DFD for many recent meetings).
- a. Monica plans to take a position at the American College of Cardiology.
 - b. She would like to continue working with the DFD too.
 - c. Her associate Peggy would do most of the work during the day and Monica would be available during evenings and weekends.
 - d. Monica will handle the 2007 meeting as planned and will make a bid for the 2008 meeting.
 - e. Monica has always hired others. She will continue to do this.
8. (5) Treasurer's report: Jim Duncan (See Appendix G)
- a. All DFD accounts are in a state of flux in the fall of each year 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 October 31, 2006. The data from March can be compared reliably from year to year because all meeting and award expenses have cleared by that time.
 - 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 \$265,085 in March 2004 to \$355,314 in March 2006.
 - d. The American Physical Society recommends that each division's operating account have a balance equal to the typical cost of one of its Annual Meetings. Since the average expenses for the last three DFD meetings were about \$353,000 (see Appendix G), our account balance is within the APS guidelines.
9. Guidelines for Minisymposia. Steve Pope (see Appendix H)
- a. These guidelines were approved by the Executive Committee.
 - b. The committee encouraged Lex Smits (next Program Committee Chair) to work closely with local organizers in the early stages of the process of selecting minisymposia and invited speakers.
 - c. The idea of having a DFD Program Committee member on the Local Program Committee was considered but not implemented.
10. Communication between DFD and NSF: Bill Schultz
- a. CTS and BES were joined to become Chemical, Bioengineering, Environmental, and Transport Systems (CBET).
 - b. Noted that CBET is dominated by Chemical Engineering.
 - c. Total budget is 5.5 to 6.0 million.
 - d. Of this year's Career Proposals, 1/3 were in biofluid dynamics, 1/3 were in nano-fluid dynamics and the remaining 1/3 covered all other subject areas.
 - e. Proposed a suite at the DFD meeting where we discuss how to address fluid dynamics at NSF.
 - f. Suggested that we try to make a new area in EFRI (Emerging Frontiers and Research Initiatives).
11. Possibility of starting a Fluid Dynamics Section of IUPAP and report on various developments at APS. Harry Swinney (see Appendix I)
- a. It was stated that we are not represented well in IUTAM because we don't make proposals for meetings.
 - b. It was stated that we should be more aggressive in this area.
12. Changes to the travel award program procedures and distribution of USNCTAM Report: Werner Dahm (see Appendix J)
- a. The need to make travel awards early enough give awardees from underdeveloped countries sufficient time to get visas.
 - b. This should be timed relative to abstract deadline.
 - c. Changes to the award amounts and selection criteria are discussed in Appendix I.
13. Closing remarks and plans for the year ahead: Steve Pope
- a. Steve thanked everyone for their efforts this year.
 - b. Suggestions for committee members for next year were requested.

Appendix A. Meeting proposal for 2009 meeting in Minneapolis, Krishnan Mahesh

From: Krishnan Mahesh
Dept. Aerospace Engineering and Mechanics
University of Minnesota

Background:

A proposal was submitted to the Executive Committee on May 27, 2006. Following discussions by the Committee, Ms. Monica Malouf from Meetings and More visited us on August 23, 2006, and was shown the city, and candidate venues for the meeting and reception. We were then asked to submit the present proposal.

Organizing Committee:

The University of Minnesota has a strong presence in fluid mechanics, and we have a dedicated organizing committee for the 2009 DFD meeting. The following fluids faculty will be part of the organizing committee: Ellen Longmire (AEM), Graham Candler (AEM), Dan Joseph (AEM), Krishnan Mahesh (AEM), Roger Arndt (SAFL), Fernando Porte-Agel (SAFL), Kimberly Hill (SAFL), Fotis Sotiropoulos (SAFL), Satish Kumar (ChemE), Mihailo Jovanovic (EE), Paul Strykowski (ME), and Sean Garrick (ME). Three more fluids faculty are expected to be hired before 2009.

Meeting Venue:

We propose to host the meeting at the **Hilton Minneapolis**, which is located at 1001 Marquette Avenue in downtown Minneapolis. We have planned for 17 parallel sessions, expandable to 20. The meeting rooms vary in size from 100 – 600 people. The entire meeting will be hosted on the second and third floors of the Hilton. The floors are connected by stairs, elevator and escalator. The Hilton Ballroom will host the Awards Ceremony. Floor plans along with a tentative usage plan are attached to this proposal.

A contract has been negotiated with the Hilton, and submitted to the APS. The following block of rooms will be reserved for the meeting.

DAY	DATE	ROOMS
Thurs.	November 19, 2009	10
Fri.	November 20, 2009	55
Sat.	November 21, 2009	600
Sun.	November 22, 2009	640
Mon.	November 23, 2009	600
Tues.	November 24, 2009	50
Wed.	November 25, 2009	0
TOTAL BLOCK		1955

Room rates: \$148 + 13.15% state tax per night for one or two people in a room.
Each additional person, age 18 and older, will be charged \$20 per person per night.

The following hotels are within walking distance of the Hilton, in case additional accommodation is needed:

Holiday Inn Express Hotel and Suites	0.1 miles
Doubletree Guest Suites	0.2 miles
Residence Inn by Marriot	0.2 miles
The Marquette	0.2 miles

Downtown Minneapolis has approximately seven miles of glass-enclosed skyways. The Hilton is part of the skyway system, which links most buildings and hotels in downtown Minneapolis, in what the city calls 'climate-controlled bliss'. A map of the skyway system is attached.

The Hilton is a block from Nicollet Mall, which is a pedestrian-and-taxis only, shopping and dining district. The Nicollet Mall is 11 blocks long, and offers a variety of eating options. A map of Nicollet Mall showing some of these options is attached.

Potential Reception Venue:

We are considering three possible venues to host the reception: Hilton Ballroom, Minneapolis Convention Center and the Historic Train Depot. All three venues can comfortably host the reception (we are planning on 1200 guests), and have reputable catering services. The Hilton Ballroom and Convention Center do not require busing of attendees, and are preferable, in case we experience bad weather. A final decision will be made following Ms. Monica Malouf's (re)visiting Minneapolis.

Travel:

Minneapolis/St. Paul International Airport (MSP) is a hub for Northwest airlines, and is readily accessible by direct flights from most cities. Nearly all major airlines offer service at MSP. The airport is located approximately 11 miles from downtown Minneapolis. One-way taxi fare from the airport presently costs about \$30. Shuttles (\$16), and light rail (under \$5) may also be used.

Weather:

The weather in Minneapolis in late November is difficult to predict. It can be sunny and pleasant (light jacket weather), or it can be 'character building'. The average temperature in November is 40 deg.F for a high, and 25 deg.F for a low.

Support:

We will be working closely with Ms. Monica Malouf from Meetings and More. The Hilton has an Events Department who will work with us on the logistics (Ms. Kimberly Zoulek point of contact). The Minneapolis Convention and Visitors Bureau (Ms. Betty Williams point of contact) is an extremely useful resource, and is working closely with us. A letter of support from the Mayor's office is attached.

Web-sites:

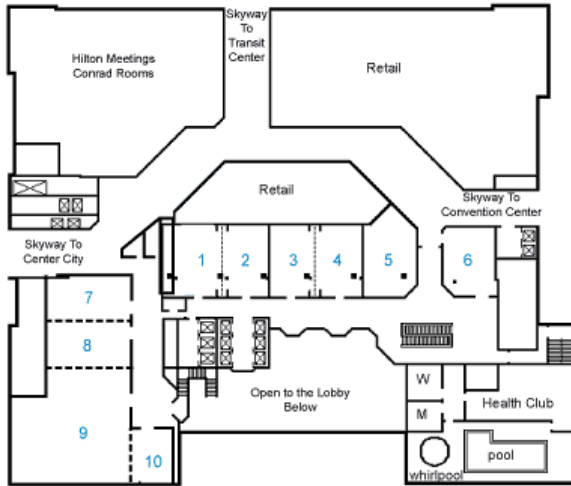
Hilton Minneapolis:

<http://www.hilton.com/en/hi/hotels/index.jhtml?ctyhocn=MSPMHHH>

Minneapolis Convention Center: <http://www.mplsconvctr.org/>

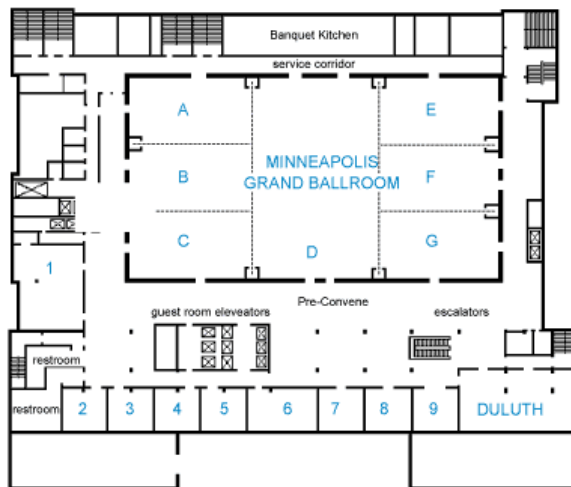
Floor plans

HILTON MINNEAPOLIS - SECOND FLOOR



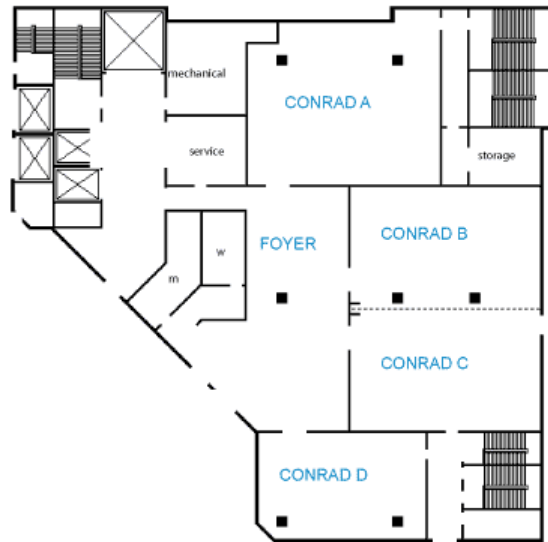
- | | |
|--------------|--------------------------|
| 1. MARQUETTE | 7. SYMPHONY BALLROOM I |
| 2. LASALLE | 8. SYMPHONY BALLROOM II |
| 3. HENNEPIN | 9. SYMPHONY BALLROOM III |
| 4. CARVER | 10. SYMPHONY BALLROOM IV |
| 5. RAMSEY | |
| 6. NICOLLET | |

HILTON MINNEAPOLIS - THIRD FLOOR



- | | |
|---------------------|---------------------|
| 1. ROCHESTER | 7. DIRECTOR'S ROW 2 |
| 2. BOARD ROOM 1 | 8. DIRECTOR'S ROW 3 |
| 3. BOARD ROOM 2 | 9. DIRECTOR'S ROW 4 |
| 4. BOARD ROOM 3 | |
| 5. DIRECTOR'S ROW 1 | |
| 6. RED WING ROOM | |

**HILTON MINNEAPOLIS - SECOND FLOOR
HILTON MEETINGS - CONRAD ROOMS**



Usage plan

Room	Event	Thurs	Fri.	Sat.	Sun.	Mon	Tues.
Red Wing Room	Office/Reg	Thurs., 7am – Tuesday, 11:59pm					
Board Room	1	Hold for Exhibits		7a – 12a	7a – 12a	7a – 12a	7a – 6p
	2	Hold for Exhibits		7a – 12a	7a – 12a	7a – 12a	7a – 6p
	3	Cmte Mtgs	7a 12a	7a – 12a	7a – 12a	7a – 12a	7a – 6p
Director's Row	1	Storage	Thurs., 7am – Tuesday, 11:59pm				
	2	Hold for Exhibits		7a – 12a	7a – 12a	7a – 12a	7a – 6p
	3	Hold for Exhibits		7a – 12a	7a – 12a	7a – 12a	7a – 6p
	4	Hold for Exhibits		7a – 12a	7a – 12a	7a – 12a	7a – 6p
Foyer	Exhibits			7a – 12a	7a – 12a	7a – 12a	7a – 6p

	Room	Event	#		Sat.	Sun.	Mon.	Tue.
2 nd floor	Conrad A	Breakout	150		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Conrad B	Breakout 2	100		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Conrad C	Breakout 3	100		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Conrad D	Breakout 4	100		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Hennepin/Carver	Breakout 5	150		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Marquette/Lasalle	Breakout 6	200		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Nicollet Room	Breakout 7	100		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Ramsey	Breakout 8	100		1p – 6p	8a – 6p	8a – 6p	8a – 4p

	Symphony I,II	Breakout 9	200		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Symphony III	Breakout 10	300		1p – 6p	8a – 6p	8a – 6p	8a – 4p
3 rd floor	Rochester	Breakout 11	100		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Duluth Room	Breakout 12	150		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Salon A	Breakout 13	300		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Salon B	Breakout 14	200		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Salon C	Breakout 15	300		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Salon D	Breakout 16	600		1p – 6p	8a – 6p	8a – 6p	8a – 4p
	Sal EFG	Breakout 17	600		1p – 6p	8a – 6p	8a – 6p	8a – 4p

2nd floor: [5] rooms of 100 people, [2] of 150, [2] of 200, [1] of 300
3rd floor: [1] room of 100, [1] of 150, [1] of 200, [2] of 300, [2] of 600

Appendix B. Proposal for 2010 meeting in Long Beach, Geoffrey Spedding.

We propose that the 2010 annual meeting of the Division of Fluid Dynamics of the American Physical Society be held in California, in Los Angeles/Long Beach area. In order to make it successful this proposal briefly addresses the following issues:

Local Organizing Committee

The local organizing committee for the proposed meeting would consist of faculty from University of Southern California, University of California Los Angeles, and California Institute of Technology. Currently the following 22 persons agreed to be involved, to a lesser or greater extent, and participated in discussions leading to this proposal. **Twelve from USC:** Domaradzki (Chair), Blackwelder, Campbell, Kanso, Muntz, Newton, Phares, Pottebaum, Redekopp, Ronney, Sadhal, Spedding; **four from UCLA:** Eldredge, Karagozian, Kim, Kavehpour; **six from Caltech:** Brady, Colonius, Dabiri, Hunt, Leonard, McKeon. Additional persons and academic institutions, e.g., Cal State Long Beach, will be contacted later to determine their interest in joining as organizers.

Institutional Support

The Chair of the Aerospace and Mechanical Engineering at USC and Dean of the USC Viterbi School of Engineering support the proposed effort, details TBD. An additional support from the remaining academic institutions as well as industry based in Southern California, e.g., Boeing, will be sought later.

Meeting Location

Long Beach, CA, has been selected from three sites evaluated in the Los Angeles/Long Beach area.

Advantages are a confirmed availability of Long Beach Convention Center space (20 rooms for parallel sessions, Promenade Ballroom with 1400 person capacity and Grand Ballroom with capacity of 2100), generous additional meeting space provided free of charge in Hyatt that is connected to LBCC (including Regency Ballroom with 1400 person capacity), the proximity to the waterfront, and plenty of restaurants in the **HILTON** neighborhood. The Long Beach

Convention Bureau has been very responsive, professional, and prompt in planning the meeting and has proven itself to be a reliable partner in this endeavor and should also be very helpful in the future. It prepared a proposal addressing APS DFD meetings requirements specified by the local organizers and Monica Malouf of Meetings and More.

Disadvantages are a lack of a single hotel big enough for the expected size of the meeting (we have worked with an estimate of 2000 participants) and the resulting expense of renting the LBCC space (\$46,100). However, using the Convention Center would result in a compact location, with easy flow of participants between meeting rooms, and the proposed hotels are essentially adjacent to the Convention Center.

Hotels

There are confirmed blocks of rooms in 5 hotels, all within a short walking distance, totaling about 1,000 for Saturday through Monday, with rates from \$106 to \$205. Hyatt, with a rate of \$194, is proposed as the primary meeting hotel because it is directly connected to the Convention Center. There are total of 16 hotels/motels in the downtown area within a walking distance of the LBCC (or by free local shuttle) with a total of 2,984 rooms. Few other large hotels are located in the vicinity of the Long Beach airport requiring a car. The number of hotel rooms citywide is listed as 4,209.

Meeting Reception

The Aquarium of the Pacific and the Queen Mary are the proposed sites that can accommodate the reception using participants' numbers from previous years provided by the Meetings and More. Both facilities have been contacted and are holding space. The advantage of the Aquarium is that it is within a walking distance from the hotels. Queen Mary would require transportation by buses but provides a rare and unique experience of a great ocean liner. Next to it is docked a Russian submarine Scorpion that can be visited as a tourist attraction.

Travel, Weather, Dining, Local Attractions

LAX (23 miles), the Long Beach airport (mostly JetBlue, 7 miles), and John Wayne airport (23 miles). There is a public transportation from LAX to downtown Long Beach using an airport shuttle and the Green and Blue Metro lines (travel time and convenience will be investigated later). Weather: mild and sunny. Dining: area has many restaurants, informal and formal, and is active throughout the week, including Sundays. Additional and more detailed information is provided in the LBCB proposal and a separate Long Beach Fact Sheet.

Meeting Budget

At this time the only known budget item is rent for the Convention Center space (\$46,100).

Appendix C. Proposal for 2010 meeting in Baltimore, Charles Meneveau.

Proposal to the Executive Committee, APS
Fluid Dynamics Division

by A. Prosperetti, S. Chen, J. Katz, O. Knio, C. Meneveau and L. Su
Department of Mechanical Engineering, Johns Hopkins University

This is a proposal to hold the 2010 (63rd of the series) Annual Meeting of the Division of Fluid Dynamics of the American Physical Society in Baltimore MD on Nov. 21 (Sunday), 22, and 23 (Tuesday).

Organization

The meeting will be hosted by the Department of Mechanical Engineering of the Johns Hopkins University and the Organizing Committee will consist of Andrea Prosperetti (lead organizer), Shiyi Chen, Joe Katz, Omar Knio, Charles Meneveau, and Lester Su, all faculty member of the host Department.

Meeting site

The meeting will be held at the Marriott Waterfront Hotel, 700 Aliceanna St., Baltimore MD 410 385 3000. This was the hotel used this past March as headquarters for the APS spring meeting. It may also be noted that this year's (2006) meeting will be held at the Tampa Marriott Hotel, which has a similar layout but a smaller overall meeting space. A "virtual tour" of the hotel is available at <http://www.marriottvirtuallyhere.com/BWIWF/>.

Figure 1 is a map of the hotel's 3rd floor (Grand Ballroom) and Figure ?? of the 4th one (Harborside Ballroom), with a list of the available rooms and the capacity of each.

On Level 3, the Grand Ballroom (Salons I--X) with a Theater arrangement can host 2100 people and would be suitable for the plenary session. It can be divided into 2 spaces (Salons V and VI), each with a capacity of 600, and additionally into 4 spaces (Salons II, III, VIII and IX), each with a capacity of 100, and into 4 additional spaces (Salons I, IV, VII and X) with a capacity of 60. 6 additional rooms are available, 3 with a capacity of 40 to 46, and 3 with a capacity of 60. The maximum number of separate rooms available on this level is therefore 16. In addition, there is a Board Room and a Convention Registration space.

On Level 4, the Harborside Ballroom (Salons A--E) can host 1600 people and would be suitable for the exhibitors' space. This room can be divided into 5 spaces, 4 (Salons A, B, D, E) with a capacity of 220 each, and 1 (Salon C), with a capacity of 500. On this level,

15 additional rooms are available with a capacity of 45 to 50, 9 of which can be combined into 3 groups, each with a capacity of 150 to 200. The maximum number of separate rooms available on this level is therefore 20. A Convention Registration space is available on this level as well.

Level 3, with a few smaller rooms on Level 4, and the Harborside Ballroom for exhibitors and coffee breaks, appear suitable for our needs. With this arrangement, all the meeting rooms will be very near each other.

If we guarantee at least 500 hotel rooms, we would have the meeting rooms free of charge. It should be easy to go over this threshold as the Chicago meeting had about 650 hotel rooms. The room price would be set at the current rate (a bit less than \$175 per night) adjusted upward by not more than 4% a year in the intervening years.

As shown in Figure ??, the Marriott Waterfront is very near the downtown area and the Inner Harbor in the midst of many tourist attractions and close to a large number of other cheaper hotels.

The hotel confirmed its availability for our dates.

Travel

Baltimore is served by the Baltimore-Washington International (BWI) Airport which is about 9 miles from the hotel. The airport is served (among others) by Air Canada, Air Tran, American Airlines, America West, British Airways, Continental, Delta, Frontier, Icelandair, Mexicana, Northwest, Southwest, United, and US Airways. There are 339 non-stop daily flights to 59 domestic destinations and 8 non-stop daily flights to international destinations, including London with British Airways, Mexico City with Mexicana, Reykjavik with Icelandair, and Toronto with Air Canada.

Taxis from BWI to the proposed conference hotel run around \$25, and shuttles a bit less.

The Washington airports (Reagan and Dulles) can also be used, especially by attendees from overseas. Washington Reagan is connected to Washington Union Station by subway, and frequent trains connect Washington Union Station to Baltimore Penn Station, from which a taxi ride to the hotel would cost less than \$10.

Connections with Washington's Dulles Airport is less convenient but, if deemed desirable, shuttle buses can be arranged.

Conference Reception

In view of the interests of the participants to this conference, an ideal venue for the reception is Baltimore's National Aquarium, one of the city's major attractions. A brochure with some information on the Aquarium is attached to this document.

The Aquarium is about 500 m from the hotel (see Figure ??) and can be easily reached on foot, although buses will be provided.

The Aquarium consists of two connected buildings. The main aquarium building is on four levels with exhibits lining the walls on all the levels. There is reception space in the lobby. The other (dolphin) building is mostly open space. The stated total capacity of two buildings together is 2500 for a standing reception. We are told that the last event (October 24 2006) had 1860 guests who all had dinner and saw all the exhibits, with no problem of over-crowding.

The cost of renting both building would be \$15,000, which would amount to about \$8 per person with the attendance we can anticipate on the basis of the current data. The Aquarium has an exclusive catering contract with Classic Catering People, with whom a separate contract would have to made.

We are told by colleagues who held similar receptions at the Aquarium that the venue works very well and the caterers also provide a very satisfactory service.

Program for accompanying guests

The Baltimore area offers numerous possibilities for accompanying guests. the Inner Harbor (within walking distance from the hotel) is a pleasant area for food, shopping, and strolling. Two major art museums, the Walters Art Museum and the Baltimore Museum of Art, are within a \$8 taxi ride from the hotel. There is a Science Museum (reachable on foot) and a Museum of Industry (only slightly farther away). Other museums (American Visionary Art Museum, Baltimore & Ohio Railroad Museum and others) are also located in the general downtown area.

Forty miles south of Baltimore, Washington is also, of course, a major destination for which buses can readily be arranged.

Scientific program

The scientific program will follow the standard pattern of our meetings: a plenary session on Sunday afternoon, pairs of parallel invited lectures on Sunday afternoon, Monday morning and afternoon, and Tuesday morning, and parallel sessions the rest of the time.

The meeting will start on Sunday Nov. 21 at 8 a.m. and finish on Tuesday in the early afternoon.

Space will be provided for the Gallery of Fluid Motion posters and videos.

There will be one coffee break each morning and each afternoon (except Tuesday).

Logistics, registration, web page

The overall coordination will be entrusted to the capable hands of the DFD usual conference organizers, Meetings and More.

Handling of pre-registration, on-site registration, payments, and staffing of the registration desk will be delegated to a specialized service, which will also provide final reports of registration numbers, finances, etc. One possibility is the Johns Hopkins Office of Conference Services, which currently charges \$16 per registrant (plus 3% of the registration fee for the credit card company). This is somewhat more than the cost incurred for the Chicago meeting (\$11.75 per person). We will work with Meetings and More to identify the best option for these services when we are closer to the meeting date.

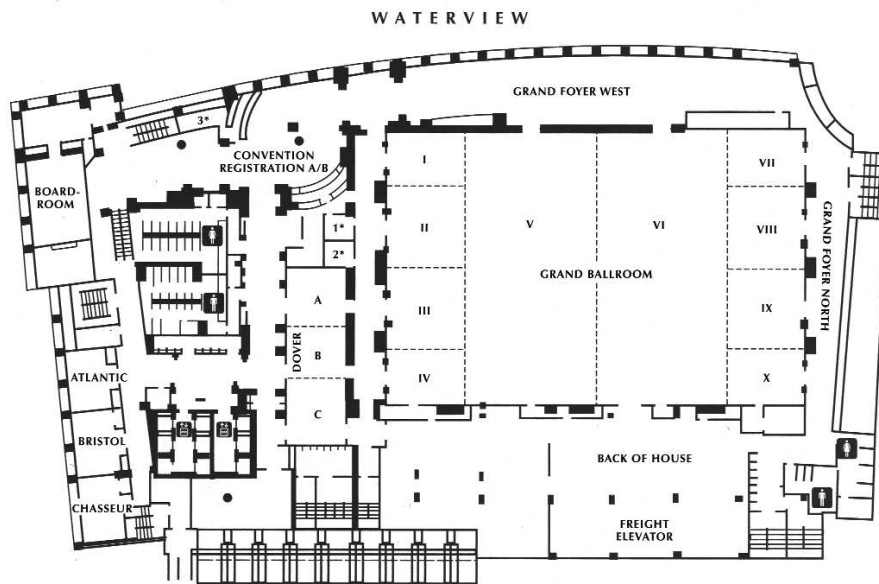


Figure 1. Floor plan and meeting room capacity for level 3 of the Baltimore Marriott Waterfront Hotel

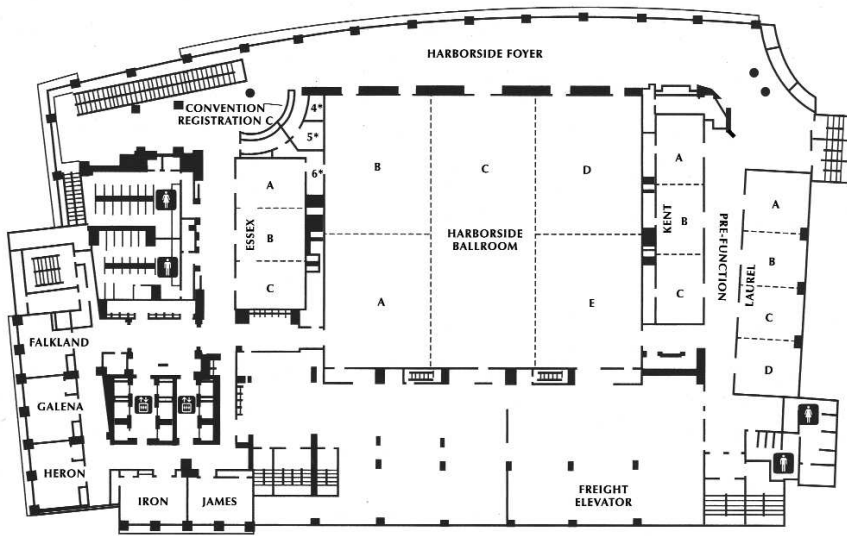


Figure 2. Floor plan and meeting room capacity for level 4 of the Baltimore Marriott Waterfront Hotel



Figure 3. Map of downtown Baltimore; the hotel is marked by the red bubble with the letter A. In a straight line, the distance between the hotel and the National Aquarium is about 500 m.

Appendix D. Report on 2006 meeting in Tampa. Tony Ladd.

Abstracts

There were approximately 1300 oral abstracts submitted, which have been organized into 16 parallel sessions. Talks with the same sorting category are almost always in the same room. Based on past attendance numbers, we do not expect overcrowding in any of the rooms. The Gallery of Fluid Motion posters will be displayed in the Foyer of the Grand Ballroom and the regular poster session will be displayed in the Foyer of the Florida Ballroom. The Gallery of Fluid Motion videos will be shown at the rear of the exhibit hall.

Plenary Sessions

The presentations and Laporte lecture are on Sunday at 2pm. Invited lectures are on Sunday (2), Monday (4) and Tuesday (2). The Acrivos and Frenkiel lectures are also on Tuesday. Minisymposia are on Sunday (1), Monday (1) and Tuesday (2).

Registration

We have 1220 pre-registered participants. Based on past history we expect between 100 and 200 onsite registrations, so we are projecting a total attendance around 1370.

Budget

Based on our projected attendance we are expecting a deficit of \$8000, with expenditures of approximately \$370,000. The balance shifts by about \$8000 per 50 people.

Reception

The reception is at the Florida Aquarium, from 7-11pm. Food and drink from 7-9:30.

Hotels

There has been some shortage of hotel space near the meeting site. In the end the Embassy Suites hotel did not open in time, so that left us a bit short. The emails about accommodation have died out so I think everyone has found a place. Although the Westin is the only other hotel nearby there are several others (including the Hilton) within walking distance.

Teacher Workshop

The High School Teacher workshop, organized by Jean Hertzberg, will be held Sunday afternoon. Jason Butler has been coordinating that event. There are at least 10 participants registered. We will put out a press release this week on the workshop and on the lecture on hurricane prediction.

DFD 2007

There are some issues which should be addressed prior to DFD 2007

- 1) Update the sort categories to reflect shifts in interests. For example Biofluids and Multiphase flow had over 100 abstracts each-DSMC had 5.
- 2) Only 15 talks with overhead projectors this year. Continue to phase out OHP's. Introduce a check box on abstract submission form.
- 3) Better define roles of local and executive committees. Suggest Exec committee take over the selection of Minisymposia-perhaps allow LOC to choose 1.
- 4) Better coordination between various committees, especially with regard to travel scholarships (especially now visas can take so much time to obtain), prizes, and fellowships.
- 5) Clear deadlines for various groups. Monica now has a detailed checklist.
- 6) New process for finding session chairs. Check box on abstract submission form.
- 7) GFM. Much stricter formatting standards. Suggest we use laptops and LCD monitors in future. Better quality and more flexibility although cost is higher (\$2500 vs. \$1500)

Appendix E. 2007 Meeting in Salt Lake City, Pat McMurtry

The meeting venue (Salt Palace Convention Center) and hotel selection have been discussed in detail in previous reports. Here, the meeting update is discussed primarily in terms of the budget. A few other planning items are noted.

Current Budget estimates and explanation. This is based on 1,300 paying attendees. For the budget discussed, 1300 turns out to be approximately the break even point.

Income: I have set up a spread sheet that uses the same ratio of early , late, APS, non-APS, and student as the Chicago meeting. At the Spring DFD teleconference we talked about raising the fees for all but students \$10 in Tampa and an additional \$10 for Salt Lake. The minutes from that meeting, however, only mention the \$10 Tampa increase so I have used the Tampa registration fees. APS will also receive \$6.00 for each room night to help offset the cost of the convention center. The budget also assumes 12 exhibitors paying \$1,800 per booth.

Salt Palace Rental: \$22,000.

Conference Services and materials: \$4,000. This estimate is based on the Chicago meeting and includes volunteer T-shirts, photocopying, bags for meeting material, phone calls, and other miscellaneous meeting costs.

Signage, Furniture, Booths: \$14,000. I don't have a firm quote on this, but this cost is based on previous meetings. There are a couple of companies in Salt Lake City that I will get bids from. I am waiting till after the Tampa meeting to put together a specific request.

Registration: \$40,000 based on an estimate I have seen for the Tampa meeting.

AV and Timing: \$60,000. I have two quotes. One from Cornerstone (a company that regularly works in the Salt Palace) and one from AV Matters, the company providing the AV in Tampa. AV matters is about \$10,000 higher, most likely because they are not local and would be bringing out all their own equipment and staff. I have been to the convention center and seen Cornerstone's set up and am very happy with that. I also solicited references for Cornerstone and they are all glowing. For timing, we need to patch into the convention center cable. This patch cost should be about \$1,500. Once we have a signed contract, I will be able to get harder details. Even if AV Matters does a very good job in Tampa, I can't think of a reason to not go with Cornerstone.

High School Program: \$3,000. I am working with several people right now to hold an evening of Art and Science with high school students and teachers (also open to the public). We may have a speaker who is an established person in science photography or film. I hope also to have students present videos, poster on their Art/Science interpretations. Costs would go to fund some students to participate in workshops and cover costs of an invited speaker in this area.

Hotel – Invited speaker and Staff: Based on 8 invited speakers, 4 award speakers, and 3 staff, this comes to approximately 40 room nights. I'll want to comp three of the organizing committee members from out of town and use some of the 50% rooms of appropriate DFD personnel. With 35 comp room nights total, and 18 half price rooms/night, we will be out a little here. I've estimated a total cost of \$2,000 here.

Comp rooms: Marriot:

Saturday:6

Sunday: 7

Monday: 7

Additional Staff rooms: 10 per night @ 64.50.

(also 4 complimentary parking passes)

Plaza Inn:

Saturday:1

Sunday: 2

Monday: 2

Radisson:

Saturday:3

Sunday: 4

Monday: 3

Additional staff rooms: 8 per night @ \$54.50

Executive Committee Dinner: \$1,250 I budgeted for 25 people at \$50/person. This would include wine with dinner.

Student Luncheon: \$2,000. I haven't had any great ideas on this. I liked what was done in Chicago and will be done in Tampa (students meeting with experts in different areas). If this appears to be working, I will continue with the same format of box lunches in a large room in the convention center.

Reception: \$70,720. This number was arrived at by assume 85% of the attendees will attend the Banquet. I used a menu from Utah Food Services to come up with the cost per person. This would include three different types of buffet stations, a desert station, and a hosted bar with beer and wine. The menu above should be quite substantial. If anything, I have overestimated this. If the number of registrants is lower, this could probably be decreased somewhat without having any complaints. To figure out our cost for the hosted bar, I assumed 2 drinks per person at \$4.00/drink. We will be charged by the actual number of drinks so this number could go up or down. If we give out drink tickets we will know the maximum cost. Once we get closer I will work directly with the caterer on an appropriate menu.

Reception entertainment: \$4,000. If budget allows, I would like to have a "fire vortex" performance outside the banquet area. This will require 2 things: Approval by the Salt Palace, and a permit from the fire department. I have successfully done these things in public places before (once in the courtyard of the city library), so it will mainly depend on how receptive the convention center is to this. I will pursue this once the contract is in place.

Printing and promotion: \$70,000. This is an estimate based on previous year costs and includes the bulletin and synopsis. There are also some costs for some promotion materials I am preparing (post cards), but those are fairly small.

Break refreshments: \$36,855. Based on three morning breaks and two afternoon breaks. The morning breaks are light continental breakfasts with coffee and juices. The afternoon breaks are a combination of cookies, drinks etc. The budgeted number assumes that 90% of the registrants participate in all breaks (likely an overestimate?).

Web site: The meeting website is dfd2007.eng.utah.edu. I put together an initial design, but then hired someone to do the coding and maintain the site. If we break even or run a little surplus, I will try to get partially reimbursed for what I have spent on this. Please look over the site and get back to me with any corrections or additions.

Promotional mailings: I made up some postcards to promote the 2007 meeting. BYU has agreed to pay for postage to mail these out to other fluid conferences should the meeting organizers agree to place them in the registration packet. In addition there may be some other mailing costs that I will keep within a small budget. You should have a copy of the postcard in your registration packet.

Miscellaneous: I am sure I have missed something, so I have added a little cushion for that.

Other Items:

Travel Grants: The participating universities have agreed to provide \$11,250 for travel grants to the 2007 meeting. (\$5,000 U of U, \$2,500 BYU, \$3,750 Utah State)

Internet access: All three hotels have free wireless access for their guests. Meeting participants can purchase internet access in the convention center for \$12.00/day or we could buy unlimited internet access in the convention center for the duration of the meeting for \$3,500. Given that wireless is free to all guests at their hotels, I am inclined to leave it at that.

To do in next two months:

Sign AV Contract – We have all information we need. I see no reason this shouldn't be done before Christmas,

Lock up banquet space in Convention Center. I asked Jan Ross to make sure we had first choice of Foyer in convention center for banquet. When she was working to get contract signed last Winter/Spring. The contract is still not signed. Once we have the contract, we will have an official contact that I can work with to finalize that. I want this done in January.

Decorator – After the Tampa meeting I should have enough information to write up a bid request for the decorator. There are several places in Salt Lake that have serviced the convention center. Time frame; Bids in by February, contracts signed by March.

Select dates for opening on-line registration, abstract submission, housing. I'm not sure how this is done, but would like to have accurate information on our website.

Appendix F. San Antonio, Sharath Girimaji

1. Hotels: Contracts are in place for three hotels.

Marriot. This includes two prime locations: Rivercenter and Riverwalk. Both locations are within easy walking distance from the convention center. The rates \$142 single/double; and \$152 triple/quad

DAY	DATE	Rivercenter / Riverwalk Room Block		
Thurs.	November 20, 2008	15	15	30
Fri.	November 21, 2008	19	19	38
Sat.	November 22, 2008	220	225	445
Sun.	November 23, 2008	235	240	475
Mon.	November 24, 2008	225	231	456
Tues.	November 25, 2008	19	19	38
TOTAL BLOCK		1,482		

Menger Hotel: This historic hotel is located between the Alamo and the Convention center and is within walking distance from both attractions.

DAY	Thurs.	Fri.	Sat.	Sun.	Mon.	Tues.	Wed.
DATE	11/20	11/21	11/22	11/23	11/24	11/25	11/26
SINGLES							
DOUBLES							
KINGS							
TRIPLE							
SUITES							
TOTAL	10	15	140	150	145	15	Checkout

TOTAL ROOM NIGHTS: 475

ROOM RATES:

TYPE: Single: \$119. Double: \$119. Triple: \$119. Quad: \$119.

2. Convention Center: The contract has been finalized. There is adequate meeting space and we also have two very large Ballrooms. There are also two porches which have multiple utility. Monica has further details.

3. Reception: We have decided to hold the reception on the grounds of the Convention Center which includes parts of the famous San Antonio riverwalk. This is a very attractive locale. We plan to have live local music and other entertainment. In case of inclement weather, we will move the reception indoor to the Ballrooms. The two Ballrooms together have a capacity of well over two thousand and hence quite adequate for hosting the reception.

4. **AV:** I have not yet begun looking into this.

5. **Website:** We will have the website up by January 2007.

6. **Organizing committee.** At present, the following have agreed to be on the organizing committee:

- 1) Sharath Girimaji, Local Organizing Committee Chair.
- 2) Bill Saric
- 3) Helen Reed
- 4) Rodney Bowersox
- 5) Adonios Karpelis
- 6) Malcolm Andrews
- 7) Harry Swinney (UT Austin)
- 8) Randy Truman (U. New Mexico)
- 9) Frank (U. Oklahoma)

Appendix G. Treasurer's Report. Jim Duncan

(Latest data from 10/31/06 budgets.)

Award Account Balances

Award	10/31/06	3/31/06	3/31/05	3/31/04
Acrivos	\$71,612	\$68,755	65,413	64,129
Fluid Dynamics Prize	\$146,417	140,575	141,320	141,704
Laporte	\$124,851	119,870	111,787	104,251
FDP + Laporte	\$271,268	260,445	253,107	245,955

Operating Account Balances

Account	10/31/06	3/31/06	3/31/05	3/31/04	3/31/03
Operating	325,395	355,314	313,682	265,085	281,697

The increase from 2005 to 2006 is primarily due to about \$20,000 in profit on the 2005 meeting and \$20,000 in interest on the operating account balance during year.

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. Since the average expenses for the last three DFD meetings were about \$360,000 (see below), our account balance is within the APS guidelines.

Recent Meetings

Meeting	Income	Expense	Profit (loss)
---------	--------	---------	---------------

Tampa (2006)			
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

Appendix H Minisymposia Guidelines. Steve Pope

Definition: A minisymposium is a session consisting of talks of twice the length of contributed talks. Typically there are six 26-minute talks.

Number: At each Annual Meeting there may be up to four minisymposia.

Types: A minisymposium may fall into one or more of the following categories:

1. *Educational:* talks on education of undergraduate and graduate students in fluid dynamics.
2. *International:* talks by US and non-US researchers on a sub-topic of fluid dynamics.
3. *Tutorial/Review:* a series of tutorial and/or review talks aimed at communicating the state of the art in an area of particular current interest.
4. *Focus session:* a series of talks on an exciting and important area of current research.

International minisymposia are intended to encourage more cooperation between societies, and interactions and collaborations among their members. Preferably the proposal for such a minisymposium is made jointly with a non-U.S. society. In general it is not appropriate to have a minisymposium “in honor” of a colleague.

Proposals: A one-page proposal for a minisymposium may be submitted by any DFD member. Such proposals should be sent by e-mail to the Chair of the DFD Program Committee prior to January 15 in the year of the intended annual meeting. A call for proposals will be placed on the Division’s website and in the Fall Newsletter. The local organizing committee may also propose one or more minisymposia.

Speakers: Proposals should contain a list of possible speakers, but the suggested speakers should not be invited by the proposers. In the event that the minisymposium is selected, the appointed organizer will invite speakers. In general the expenses of the invited speakers are not paid by the Division, nor are the registration fees waived.

Selection: As stated in the bylaws of the Division “the Program Committee shall have final responsibility for the selection of invited talks and minisymposia Generally, the Program Committee works with the local organizing committee that makes recommendations on these matters.” The general practice is for the local organizing committee to select minisymposia

for approval by the Program Committee. Some preference should be given to proposals for *Educational* and *International* minisymposia. Once the selection of minisymposia has been made, the local organizing committee shall notify all proposers. For each selected minisymposium an organizer (or organizers) will be appointed, who normally are the proposers of the minisymposium. These organizers are responsible for inviting the speakers for the minisymposium.

Multiple talks: Talks in *Educational* minisymposia are deemed not to be research talks, and hence speakers may also present one talk in the sessions of contributed talks. Talks in *non-Educational* minisymposia are deemed to be research presentations, and hence speakers in these minisymposia are not permitted also to be first authors on contributed abstracts nor to present additional talks in the sessions of contributed talks.

Appendix I. APS Report by Harry Swinney

IUPAP

During this past summer the DFD officers discussed the possibility of preparing a proposal for the establishment of a new *Commission on Fluid Dynamics* in the International Union of Pure and Applied Physics. Most fields of physics are represented in the 19 existing Commissions of IUPAP, but not fluid dynamics, see <http://www.iupap.org/commissions/iupap-commissions.html>

IUPAP commissions sponsor international conferences, often with satellite meetings before and after the main meeting, and give international awards. Proposals for new commissions must be presented by an international steering committee at an annual IUPAP council meeting in October. The proposal should list conference(s) the new commission would sponsor and any other activities, such as the establishment of international prizes in fluid dynamics, that a Fluid Dynamics Commission would undertake.

After an exchange of emails, the DFD officers decided that it would be better to work with the well established International Union of Theoretical and Applied Mechanics (IUTAM, www.iutam.net) rather than to pursue the establishment of a Commission on Fluid Dynamics. IUTAM sponsors about four international topical meetings in fluid dynamics each year and also a large quadrennial international congress (ICTAM) on fluid and solid & mechanics (2004 Warsaw; 2008 Adelaide). Further, EUROMECH (www.euromech.org) is growing and now sponsors several international fluid dynamics meetings each year; EUROMECH also awards a 5000 Euro Fluid Mechanics Prize.

ENDOWED LECTURESHIPS

DFD is encouraged to submit nominations of Invited Speakers from outside the US for the *Beller Lecture* and the *Marshak Lecture* at the March APS meeting. The Beller Lectureship is awarded to a distinguished scientist from any country outside the US, and the Marshak Lectureship is awarded to an Invited Speaker from a developing country. The endowments provide the travel expenses for the lecturers. Nominations are due in September, and awards are announced in November.

APS FELLOWS

APS strongly encourages the Fellowship Committees from the divisions to consider women and other under-represented groups; the Fellowship Committees can generate nominations of appropriate candidates. The 249 Fellows approved for 2006 include only 14 (5.6%) women.

PROGRAM COMMITTEES

APS recommends that divisions include on each program committee the committee's past chair, in order to have better continuity and institutional memory. This is especially helpful for local program committees where the membership is often new each year.

APS LOGO

The APS policy is that the APS logo should appear on all materials, nametags, web sites, posters, etc. associated with APS-sponsored meetings. The logo in eps, pdf, gif, and vector formats can be downloaded for appropriate use from www.aps.org/logo.cfm

Appendix J. Travel Awards Program. Werner Dahm

The following suggestions for improving the travel awards program were suggested by the External Affairs Committee

- (1) Use the attached revised application form, which provides us more information about the applicant's need, whether they are giving a presentation, whether they have previously received such a grant, whether there are multiple applicants from the same group, etc.
- (2) Rate each applicant on a 0-5 scale rather than ranking all the applicants, and
- (3) Change the subsidy levels to those shown on the first page of the revised draft application form, which will make better use of the available funds and better match the subsidy levels to the typical needs.

Revised Travel Award Application:

Information on Travel Subsidy Grants to attend the APS/DFD 60th Annual Meeting, 18-20 November 2007, Salt Lake City, Utah, U.S.A.

DEADLINE TO APPLY: 2 August 2007

The Division of Fluid Dynamics (DFD) of the American Physical Society (APS) seeks to promote interest in the subject of fluid dynamics by providing financial assistance in the form of travel subsidy grants to a small number of potential participants in Division's Annual Meeting for whom the associated travel and registration costs might otherwise be prohibitive. We particularly seek to support young scientists and those who might otherwise not be able to attend the meeting.

Toward this end, the Division is inviting applications as follows:

- 1) **Institutions in U.S. and Canada:** application is open to students only; awards to selected applicants will consist of a \$500 travel subsidy grant.
- 2) **Institutions in Western Europe, Japan and Russia:** application is open to students and other researchers; awards to selected applicants will consist of a \$1000 travel subsidy grant.
- 3) **Institutions in Mexico:** application is open to students and other researchers; awards to selected applicants will consist of a \$500 travel subsidy grant and a full waiver of the meeting registration fee.
- 4) **Institutions in other countries:** application is open to students and other researchers; awards to selected applicants will consist of a \$1000 travel subsidy grant and a full waiver of the meeting registration fee.

To be considered for these awards, applicants must complete all information on the attached form and submit the completed application via email to the APS/DFD External Affairs Committee at wdahm@umich.edu. Applications must be received by the deadline indicated above.

The Division's External Affairs Committee will select recipients for these awards from among all applications received. Preference will be given to undergraduate and graduate students giving a presentation at the meeting, to applicants who lack other support to attend the meeting, and to applications from underdeveloped or developing countries. Generally, no more than one award will be given to applicants from the same research group, and strong preference will be given to applicants who have not received such an award in the previous two years.

Recipients for these awards will be notified by email by the end of August. Funds for the travel subsidy grant portion of these awards will be provided to recipients at the meeting registration desk in the form of a check drawn on a local bank.

Please visit the conference web site at <http://dfd2006.mae.ufl.edu> for further details about the meeting or for additional application forms.

Application for Travel Subsidy Grant to attend the APS/DFD 60th Annual Meeting, 18-20 November 2007, Salt Lake City, Utah, U.S.A.

Complete all parts of this application, then submit the completed application via email to the APS/DFD External Affairs Committee at wdahm@umich.edu.

Name: _____

Email address: _____

I am (please check one):

- Undergraduate student
- Graduate student
- Individual researcher and/or faculty

at the following institution:

Institution: _____

Mailing address: _____

Telephone: _____

Fax: _____

If you are a student, who is your research advisor at this institution:

Advisor's name: _____

Advisor's email: _____

Have you ever received a travel subsidy grant to attend an APS/DFD meeting?

- Yes Please indicate the year in which you received the grant: _____
- No

Are you giving a presentation at this year's APS/DFD meeting?

- Yes
- No

If you are giving a presentation at this year's APS/DFD meeting, enter the title, authors, and complete abstract for this presentation below:

Title:

Authors (all):

Abstract:

Estimate your total expenses to attend this year's APS/DFD meeting (in US \$)

Airfare: = \$ _____
Ground transportation: = \$ _____
Lodging: _____ nights x \$ _____/night = \$ _____
Meals: _____ days x \$ _____/day = \$ _____
Miscellaneous: = \$ _____
Meeting registration fee: = \$ _____
Total expenses: = \$ _____

Indicate proposed sources and amounts of all funds you plan to use for the above expenses associated with your attendance at this year's APS/DFD meeting:

Source #1: _____ Amount: \$ _____

Source #1: _____ Amount: \$ _____

Potential APS/DFD Travel Subsidy Grant (see instructions) Amount: \$ _____