The News and Information Publication of The Society of Rheology Volume 78 Number 1 January 2009

## **Inside:**

The BIGGEST Rheology Meeting to Date! Technical Program for Madison Arthur B. Metzner Early Career Award

SOR Announces New Early Career Award



R2008 erey

## Executive Committee

(2007-2009)

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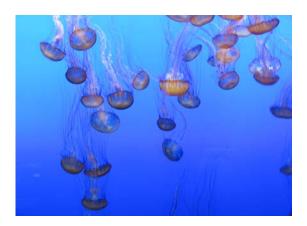
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The Monterey Bay Aquarium, the site of the Society of Rheology Reception at the International Congress on Rheology in August, has terrific displays for those interested in fluid motion. The floating jellyfish were a source of considerable fascination.

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## **Standing Committees**

## Membership Committee (2007-2009)

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## Education Committee (2007-2009)

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## Albert Co

Faith A. Morrison A. Jeffrey Giacomin Morton M. Denn Kalman Migler A. Jeffrey Giacomin Willie E. (Skip) Rochefort Michael D. Graham Andrew M. Kraynik

The Rheology Bulletin is the news and information publication of The Society of Rheology (SOR) and is published twice yearly in January and July. Subscription is free on membership in The Society of Rheology. Change of address or letters to the editor: rheology@aip.org.

The Rheology Bulletin is archived on the SOR website at www.rheology.org/sor/publications/rheology\_b/issues.htm



It took more than four years of planning and months of intense work, but it was all worth it. From 3 August to 8 August 2008, the Society of Rheology hosted the largest ever world-wide gathering of rheologists. Scientists and technologists from 41 countries met that week in Monterey California USA for the XV<sup>th</sup> International Congress on Rheology. Our hosts for the



week were Gerry Fuller of Stanford University, CA USA and Andy Kraynik of Sandia National Laboratories, Albuquerque, NM USA.

ICR2008 was a resounding success. More than a thousand participants (728 full delegates, 281 student delegates) attended and delivered five days of talks (656 oral presentations and 208 poster presentations), including invited

# The Biggest Rheology Meeting to date!



As usual, the informal discussions over posters and refreshments (sponsored by TA Instruments) were a stimulating part of the Congress.



American Institute of Physics Executive Director Fred Dylla and his wife Linda enjoyed their first rheology meeting.

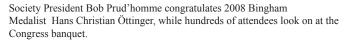
plenaries and keynote addresses delivered by, among others, Paul Callaghan, Michael Rubinstein, Howard Stone, Kenji Urayama, Michel Cloitre, Victor Steinberg, Jae Ryoun Youn, and Peter Olmsted.

The week kicked off with an opening reception at the Monterey Convention Center. After the first full day of technical talks, the



Society of Rheology welcomed all to the Monterey Bay Aquarium where delegates and their guests had the opportunity to view the exhibits while enjoying a buffet dinner served throughout the facility. Exhibits were open to all of the guests of the reception, giving ICR attendees a chance to pet gentle bat rays, learn about the life of the Bay, and contemplate the peaceful grace of floating jelly fish.

At the poster session on Tuesday, Jai Pathak and Nina Shapley supervised the judging of the SOR Student Poster Contest. Three \$500 prizes sponsored by TA Instruments were awarded for top poster presentations, going to Swapnil Kohale of Texas Tech University, Jen Shueng Tiang of McGill University, and Roseanna N. Zia of California Institute of Technology. Poster titles and a complete list of coauthors may be found on the Society web pages (www.rheology.org/sor/awards/Student\_Poster). The reception for the poster session was also supported by TA Instruments.





On Wednesday, delegates took a break from the technical sessions to attend a variety of afternoon excursions, from bus tours of wine country to kayaking on the bay. The weather in Monterey in the summer is somewhat cooler than the rest of California due to the prevailing ocean winds, but delegates were kept warm by zip-up hoodies provided to all Congress registrants by Anton Paar. Delegates also received conference sling bags sponsored by Malvern Instruments, 1Gb flash drives from Thermo Scientific, and a chance to win laptop computers, iPhones, and other prizes in a number of industrysponsored drawings.

After an afternoon pursuing individual diversions, Congress

attendees gathered at the beach for the unforgettable ICR2008 Beach Party, sponsored by SOR and TA Instruments. Musicians *Kelley and the Beachcombers* warmed up the crowd with California rock and roll, and, once the sun set, Congress host Gerry Fuller lead the limbo competition and the conga line (see below), while other participants played beach volleyball or relaxed by the bonfires.

(continues)





*Kelley and the Beachcombers* welcomed us to Monterey and thanked all us rheologists "for all [we] do" (!).

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A most memorable part of the social program was the *Rheology Idol* event, which included rheological performers from around the world

If this were not enough, as the night wore on the beach party moved in doors for a truly once in a lifetime experience, the staging of *Rheology Idol*. The audience for *Rheology Idol* was treated to a variety of performances, including a gentle ballad sung by Gerry Fuller's daughter Chloe, accompanied by her father on guitar. We also experienced Hiroshi Watanabe from Kyoto University's enthusiastic version of Hotel California, as well as a variety of other karaoke performances of varying quality. Spirits were high throughout the *Rheology Idol* event, as the secret talents of the world's rheologists were brought out and displayed for all to see.

On Thursday evening, following another full day of technical sessions, Congress attendees gathered to thank their hosts and to honor recipients of Society of Rheology awards. The 2008 Bingham Medal of the Society of Rheology was presented to Hans Christian Öttinger in recognition of his contributions to kinetic theory and non-equilibrium thermodynamics. Öttinger was fêted through the recitation of a short poem in his honor composed by R. Byron Bird and read by Society Secretary Jeff Giacomin. *Journal of Rheology* Edi-



tor John Brady presented the SOR Publication award, which went to Alexander Meyer, Andrew Marshall, Brian G. Bush, and Eric M. Furst from the University of Delaware for a paper entitled "Laser tweezer microrheology of a colloidal suspension" (*J. Rheol.*, 50, 77 (2006)). Gerry Fuller and his local arrangements team was roundly applauded in thanks for their efforts in organizing this historic meeting, and the banquet concluded with the traditional gathering of past Bingham medalists for a commemorative photo.

Technical program chairs Ralph Colby and Gary Leal kept the stakes high right to the end of the week by scheduling a plenary on the last day, delivered before the serving of a closing Congress luncheon. Although it had been a full week of rheological speculation and articulation, attendance was good at the closing lecture by Fred MacKintosh of Vrije Universiteit.

The largest-ever rheological gathering came to an end after lunch on Friday. The team that has agreed to take on the challenge of following up on ICR2008 Monterey is lead by João Maia of the University of Minho, and they will put on the *XVI<sup>th</sup> International Congress on Rheology* in 2012 in Lisbon Portugal. The beautiful city of Lisbon will be more than up to the task; meanwhile we have four years to rest up, get some science done, and practice our karaoke. For more photos of ICR2008, please see pp 22-23. ⊠





A variety of Wednesday afternoon excursions were offered including kayaking, bike riding, golf, whale watching, and wine tours.



The Society of Rheology invites you to participate in the *81*<sup>st</sup> Annual Meeting of the Society, which will take place in Madison, Wisconsin USA at the Monona Terrace Community and Convention Center 18-22 October 2009. The Society last convened in Madison in 1999, and then, as now, our hosts in Madison are the Rheology Research Center, at the University of Wisconsin, Jeffrey Giacomin, director. This is the fourth SOR annual meeting to be held in Madison.

The technical program for Madison 2009 is printed in this *Bulletin* on pages 11-12. Technical program cochairs Jeff Morris and Srini Raghavan have organized the 2009 meeting around a wide variety of technical subjects. All are invited to submit. The website for abstract submission will be up in March 2009.

A short course will be offered in Madison, *Mesoscopic Simulation of Dynamics in Complex Fluids* by Mike Graham of the University of Wisconsin-Madison and Juan Pablo Hernández-Ortiz of Universidad Nacional de Colombia. The course will run the weekend before the meeting, 17-18 October 2009. Details on the short course will be available in the July 2009 *Bulletin* and will be posted on the web at www.rheology.org.

81<sup>st</sup> Annual Meeting of The Society of Rheology, Madison, Wisconsin USA 18-22 October 2009

The Wisconsin countryside offers a wide variety of outdoor activities. In October the fall colors will be changing, and Devil's Lake, located in Baraboo, Wisconsin, has spectacular views from 500 foot cliffs, miles of hiking trails, hundreds of campsites, mountain bike trails, and great climbs. Devil's Lake is about an hour away from Madison.

Madison is a cosmopolitan city with a wide variety of restaurants and shops. State Street, located within walking distance of the Convention Center, is a bustling shopping district on a corridor that leads from the Wisconsin State Capital to the campus of the University of Wisconsin-Madison.

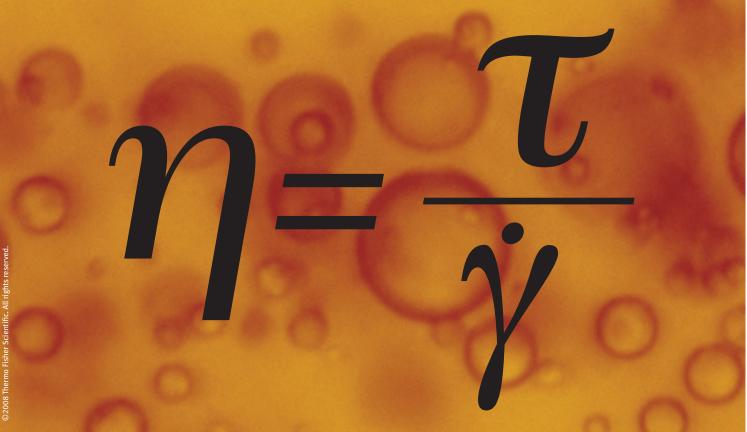
Madison can be accessed conveniently with direct flights to Dane County Regional Airport (airport code MSN) from a number of cities. Airlines serving MSN include Northwest, United Express, American Eagle, Midwest Connect, Continental Express, and Delta Connection. More than 100 commercial flights depart and arrive daily; in addition, Madison is 2 hours 20 min by car from



Chicago O'Hare Airport and 1 hour 30 minutes from Milwaukee Mitchell International Airport.

Mark your calendar for 18-22 October 2009 and make Madison and the October 2009 SOR meeting a part of your autumn plans.

UW-Madison Hoofer Sailboats near Lake Mendota, Madison, Wisconsin, © Greater Madison-Convention and Visitor Bureau



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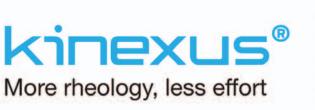






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## Technical Program 81<sup>st</sup> Annual Meeting of The Society of Rheology Madison, Wisconsin 19-22 October 2009

#### Technical Program Chairs

Jeffrey F. Morris Benjamin Levich Institute & Dept. of Chemical Eng. City College of New York 140th Street and Convent Avenue New York, NY 10031 morris@ccny.cuny.edu

Srinivasa R. Raghavan Dept. of Chemical & Biomolecular Eng. University of Maryland College Park, MD 20742 sraghava@umd.edu

To submit a presentation or poster abstract, please visit the Society website www.rheology.org after February 1.

#### 1. NonNewtonian Fluid Mechanics and Stability

Radhakrishna Sureshkumar Dept. of Chemical Eng. Washington University St. Louis, MO 63130 314-935-4988 suresh@poly1.wustl.edu

Yong Joo School of Chemical & Biomolecular Eng. Cornell University 265 Weill Hall Ithaca, NY 14853 607-255-8591 ylj2@cornell.edu

#### 2. Suspensions and Colloids

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Mike Solomon Dept. of Chemical Eng. 3142 H. H. Dow Bldg., 2300 Hayward St. Ann Arbor, MI 48109-2136 734-764-3119 mjsolo@umich.edu

#### 3. Emulsions, Blends and Multiphase Systems

Michael Loewenberg Dept. of Chemical Eng. Yale University New Haven, CT 06511 (203) 432-4334 michael.loewenberg@yale.edu

Rekha Rao Sandia National Labs Albuquerque, NM 87185 (505) 844-5591 rrrao@sandia.gov

#### 4. Biorheology and Rheology in Biological Systems

Prosenjit Bagchi Dept. of Mechanical & Aerospace Eng. Rutgers University 98 Brett Road, Piscataway, NJ 08854 732-445-3656 pbagchi@jove.rutgers.edu

## Technical Program for Madison 2009

Michael R. King Dept. of Biomedical Eng. Cornell University 205 Weill Hall Ithaca, NY 14853 USA 607-255-9803 mike.king@cornell.edu

#### 5. Microrheometry and Microfluidics

Daniel Blair Dept. of Physics Georgetown University 202-687-5985 blair@physics.georgetown.edu

Amy Shen Dept. of Mechanical Eng. University of Washington Seattle, WA 98195-2180 206-221-0372 amyshen@u.washington.edu

Rheology Bulletin, 78(1) January 2009

#### 6. Polymer Solutions and Melts

Ralph Colby Dept. of Materials Science and Eng. The Pennsylvania State University University Park, PA 16802 814-863-3457 rhc@plmsc.psu.edu

#### 9. Molecular Modeling and Simulation in Rheology

Rajesh Khare Dept. of Chemical Eng. Texas Tech University Lubbock, TX 79409 (806) 742-0449 rajesh.khare@ttu.edu

Technical Program for Madison 2009 (continued)

> Jules J. Magda Dept. of Chemical Eng. University of Utah Salt Lake City, UT 84112 (801) 581-7536 jj.magda@m.cc.utah.edu

Lynden Archer Dept. of Chemical and Biomolecular Eng. Cornell University Ithaca, NY 14853 607-254-8825 laa25@cornell.edu

#### 7. Self-Assembled Systems and Interfacial Rheology

Sascha Hilgenfeldt Dept. of Mechanical Science and Eng. University of Illinois Urbana, IL 61801 217-244-7252 sascha@illinois.edu

Lynn Walker Dept. of Chemical Eng. Carnegie Mellon University Pittsburgh PA 15213 (412) 268-3020 Iwalker@andrew.cmu.edu

#### 8. Gels, Glasses, and Jammed Systems

Corey O'Hern Depts. of Mechanical Eng. and Physics Yale University 203-432-4258 New Haven, CT 06520-8286 corey.ohern@yale.edu

Subramanian Ramakrishnan Dept. of Chemical and Biomedical Eng. FAMU-FSU College of Eng. Tallahassee, FL 32310 850-410-6159 For a srama@eng.fsu.edu Stude Nicos Martys Materials and Structures Division Building and Fire Research Laboratory National Institute of Standards and Technology Gaithersburg, Maryland 20899 301-975-5915 nicos.martys@nist.gov

#### 10. Viscoplasticity and Soft Solids

John De Bruyn Dept. of Physics and Astronomy University of Western Ontario London ON; Canada N6A 3K7 (519) 661-2111 debruyn@uwo.ca

Ian Frigaard Dept. of Applied Math & Mechanical Eng. University of British Columbia Vancouver, BC Canada V6T 1Z4 (604) 822-3043 frigaard@math.ubc.ca

#### 11. Industrial and Complex Systems Rheology

Matt Liberatore Dept. of Chemical Eng. Colorado School of Mines Golden, CO 80401 303-273-3531 mliberat@mines.edu

Jim Oberhauser Manager, Polymer R&D Bioabsorbable Vascular Solutions Abbott Vascular 3635 Peterson Way, MS115 Santa Clara, CA 95054 (408) 845-0835 James.Oberhauser@av.abbott.com

#### 12. Poster Session

Chinedum Osuji Dept. of Chemical Eng. Yale University New Haven, CT 06511 203-432-4357 chinedum.osuji@yale.edu Danilo Pozzo Dept. of Chemical Eng. Seattle, WA 98195-1750 206-685-8536 dpozzo@u.washington.edu

For information on student travel grants for Madison, see page 16. For information on the 2009 Student Poster Competition, please go to www.rheology.org/sor/annual\_meeting/2009Oct/.

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## **SOR Establishes New Early Career Award**

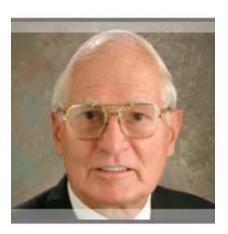
The Society of Rheology has established a new award targeted to young rheologists. The award, the *Arthur B. Metzner Early Career Award*, is named after the distinguished rheologist, university professor, *JOR* editor, Bingham medalist, and mentor Art Metzner from the University of Delaware USA.

The SOR has several awards, but the Metzner award is the first SOR award targeted at practitioners early in their careers. The Bingham Medal, given to an individual who has made outstanding contributions to the field of rheology, is a reflec-

tion of an established career and the proven accomplishments that go along with that. The new Metzner award is targeted at encouraging young individuals who have distinguished themselves in rheological research, rheological practice, or service to rheology. The Metzner Award is seen as an opportunity to signal to the wider world that the individual so named is a rheologist of high promise. This judgment is made by the recipient's colleagues in The Society of Rheology, thus making clear the value the rheological community sees in that individual's contributions.

The Arthur B. Metzner Early Career Award is named after Professor Art Metzner, who taught at the University of Delaware from 1953 until his retirement in 1993. Art was born in Saskatchewan Canada, receiving his technical degrees from the University of Alberta and the Massachusetts Institute of Technology. He taught at MIT and Brooklyn Polytechnic Institute before joining Delaware. Fellow Bingham medalist Mort Denn describes Metzner as "one of the giants of twentieth century engineering." In his long career, Metzner contributed to the advancement of understanding of, among other topics, turbulent drag reduction, shear normal stresses, dilute polymer solutions flowing through porous media, and extensional flow of fiber suspensions. The White-Metzner model for non-Newtonian fluids is in widespread use.

Art Metzner was active in The Society of Rheology, serving as editor of the *Journal of Rheology* for 10 years, shepherding the *Journal* during a difficult time. As editor, Metzner was unique in his ability to add a per-



sonal touch to his interactions with authors and reviewers. Art acknowledged each review individually, often sending a rheological postcard and a personal note.

The Executive Committee chose to name the new early career award after Art Metzner because Art was so

closely identified with mentorship of young rheologists. "Art was always looking out for the younger members of the Society," says SOR vice president Faith Morrison. "I know he had an impact on many, many of us."

The *Metzner Early Career Award* is described in detail on the Society web pages (www.rheology.org/sor/ awards/Metzner/). Lynn Walker chairs the 2009 Metzner Award Committee; Walker's contact information and more on the nominating process can be found on page 16 of

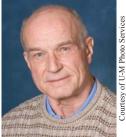
this *Bulletin*. More on Art Metzner can be found in the July 2006 *Bulletin*, which is also accessible from the Society's web pages.

## Frank Filisko 1942-2008

Reflections by Daniel J. Klingenberg

We are sad to report that the society lost a friend and colleague this Fall. Frank Edward Filisko, Professor of Materials Science and Engineering at the University of Michigan, died on November 11, 2008.

Frank received a BA in physics and math from Colgate University in 1964. He earned an MS in solid state physics from Purdue University in 1966, and a PhD in polymer physics from Case Western Reserve University in 1969. After a two-year post-



doc fellowship, also at Case Western, Frank joined the Department of Chemical and Metallurgical Engineering at the University of Michigan as an assistant professor in 1970. He spent his entire career at the University of Michigan.

Frank built a successful research program in which he *(continues on p23)* 

# Society Business



# NEWS

## 2009 Officer Elections: Report of the Nominating Committee

This year is an election year in The Society of Rheology, and our Constitution/Rules spell out the procedure. A nominating committee is appointed by the president; for 2009 the Nominating Committee was chaired by Susan Muller, and included Timothy Lodge and Dimitris Vlassopoulos.

The Committee reported on their nominations, and the membership was informed on 18 November 2008 of their selections, as outlined below.

President: Faith A. Morrison Vice-President: A. Jeffrey Giacomin Gregory B. McKenna Secretary: Albert Co Treasurer: Montgomery T. Shaw Editor: John F. Brady Members-at-Large: Ole Hassager

Marie-Claude Heuzey Kalman Migler Michael J. Solomon Norman J. Wagner Hiroshi Watanabe

For a period of forty-five (45) days following the date of the notification, additional nominees may be named by petition forwarded to the Secretary and signed by at least fifteen (15) members in good standing of the Society. Thus, nominations by petition received by 2 January 2009 will also appear on the 2009 ballot.

Balloting will take place electronically; members in good standing will receive instructions on how to cast

their ballots by email. The Constitution specifies that balloting will begin at least 80 days before the annual meeting, and thus for 2009, balloting will begin by 30 May 2009.

Since the current Secretary appears on the ballot in a contested election, ExCom member and past president Andy Kraynik has agreed to conduct the election.

## **Bingham Nominations** Sought

Nominations are invited for the 2009 professional awards from The Society of Rheology. This year, two selection processes will be conducted, one for the Bingham Medal and a second process for the Arthur B. Metzner Early Career Award (see articles below and on p 14).

The Bingham Award is presented annually to an individual who is a resident of North America or a member of the Society who has made outstanding contributions to the field of rheology. The deadline for nominations is 15 February 2009. Additional information and guidelines for preparing a nomination can be found on the SOR website at www.rheology.org/sor/awards/Bingham/nom2009.htm.

Nomination materials should be submitted by **15 February 2009** to the chair of the Bingham Award Committee, Ole Hassager:

## Ole Hassager

Department of Chemical and Biochemical Engineering The Danish Polymer Centre Technical University of Denmark Produktionstorvet Building 423, room 110 2800 Kgs. Lyngby Denmark Email: oh@kt.dtu.dk)

Award announcement will precede the 81<sup>st</sup> Annual Meeting of the Society of Rheology in Madison, WI USA (18-22 October 2009) and will be celebrated at that meeting.

## Nominations Sought for New Metzner Early Career Award

The Society of Rheology has established a new award to recognize the accomplishments of rheologists early in their professional careers. Nominations for the

## NEW SOR AWARD FOR YOUNGER RHEOLOGISTS!

inaugural Arthur B. Metzner Early Career Award are now being accepted; the deadline for nominations is 15 March 2009.

The Metzner Early

Career Award shall be given, at most annually, to a member of the Society who is younger than 35 (on January 15<sup>th</sup> of the year the award is to be given) and has distinguished him/herself in rheological research, rheological practice, or service to rheology. The award will consist of a medal and a \$7,500 honorarium.

Nomination materials should be submitted by **15 March 2009** to the chair of the Metzner Award Committee, Lynn Walker:

## Lynn Walker

Carnegie Mellon University Chemical Engineering Department 5000 Forbes Avenue Pittsburgh,PA 15213-0000 email: lwalker@andrew.cmu.edu

Award announcement will precede the 81<sup>st</sup> Annual Meeting of the Society of Rheology in Madison, WI USA (18-22 October 2009) and will be celebrated at that meeting.

## **Travel Grants Available for Madison 2009**

The Society of Rheology is again offering grants to partially support the cost of attending the Annual Meeting of the Society. These grants are available to any graduate student who is a member of the Society as of 15 July 2009 and whose faculty advisor is also a member as of that date. We anticipate that each grant will cover up to a maximum of four days of lodging at the conference hotel. Only students who have never before received an SOR travel grant are eligible. To apply, the student must write a letter requesting the grant. The student's faculty advisor should add a letter of support, certifying that both the advisor and the student are members of The Society of Rheology. Only one application per faculty advisor will be accepted for each meeting. Letters from the student and advisor should be emailed before 15 July 2009 to:

Daniel J. Klingenberg klingen@engr.wisc.edu

## **Constitutional Amendment Passed**

At the August 2008 meeting of the SOR Executive Committee, a constitutional amendment was proposed to address the disposition of Society assets upon dissolution of the Society. Because the SOR enjoys taxexempt status in the U.S., U.S. federal law requires that SOR assets pass to a similarly tax-exempt entity upon dissolution of the Society.

The proposed constitutional amendment was put before members attending the August business meeting of the Society, and a motion was passed to put the constitutional amendment to a vote. This vote was conducted in the Fall of 2008, and the amendment passed; the new Article XI of the Constitution is now reflected in the version of the constitution on the SOR website (www. rheology.org/sor/info/Constitution.htm).

## Short Courses Break Attendance Records

Two short courses were offered as part of the ICR 2008 in Monterey, and attendance was phenomenal! Eightynine participants registered for the two classes offered the weekend before the International Congress on Rheology in Monterey, California USA.

The longer of the two courses, *Suspension Rheology*, was taught by Jan Mewis and Norm Wagner. This two-day course attracted 54 participants, a record for a two-day course. The second ICR short course was the one-day *Surfactant Rheology - Self-Assembly and Microstructure Dynamics* offered by Pat Spicer and Srin Raghavan. This course was also quite large by historical standards, with 35 registrants. "The students were fantastic in their enthusiasm and diversity of back-grounds," says Spicer. "I've taught numerous short



Participants in the Suspension Rheology short course in Monterey paused for a group photo. Course co-instructor Jan Mewis is front left; Norm Wagner provided the photo.

courses internally to P&G employees but the different backgrounds of the SOR students provided a much better opportunity to evaluate the coverage."

Short courses are offered as part of the annual meetings of The Society of Rheology. The short courses run for one or two days on the weekend before meetings. The SOR Education Committee, chaired by Mike Solomon (mjsolo@umich.edu) is always looking for new topics for short courses and new instructors. Anyone interested in seeing a short course offered on a particular subject or interested in teaching a short course is encouraged to contact Solomon.

## **Rheology Nomenclature -Comments Sought**

The Executive Committee of the Society is considering the revision of the Society's Official Nomenclature and invites comments on this subject. To review the current version of the Official Nomenclature, go to the SOR home page, click on publications, then *Journal of Rheology*, then Nomenclature, and finally, the first item listed. Or, you can go directly to: www.rheology.org/ sor/publications/j\_rheology/rheology\_nomenclature/ RheologyNomenclature.pdf. If you have suggestions for revision or other comments, please communicate these to Jeffrey Giacomin, at giacomin@wisc.edu.

## Minutes of the ExCom Meeting

August 3, 2008, Monterey, CA

Attending: Monty Shaw, Faith Morrison, Jae-Chun Hyun, Manfred Wagner, Pat Mather, John Brady, Marie-Claude Heuzey, Bob Prud'homme, Jeffrey Giacomin, Albert Co, Andy Kraynik, Janis Bennett, Fred Dylla, Bob Powell, Gary Leal, Ralph Colby, Norm Wagner, João Maia, Shelley Anna, Lynn Walker, Mike Solomon, and Jeff Morris.

President Prud'homme called the meeting to order 8:25am in the Executive Board Room of the Portola Hotel & Spa at Monterey Bay. The minutes were read and approved with three corrections: (1) "Heusey" is corrected to "Heuzey" (p. 23, Col 1), (2) Add "Changes effective 2009." to end of first full paragraph (p. 22, Col 2), (3) "Issues that arose ..." is revised to "An issue that arose ...", (4) "11-17" should be "13-17" (p. 23, Col 1).

Fred Dylla, Executive Director of the American Institute of Physics (AIP), reported on the AIP role in guiding science policy in Washington, internet in science journalism, on open access publishing (by recent law, any NIH funded work must now be published as open access), and on the future of electronic publishing. The Society of Rheology is a founding member society of the American Institute of Physics.

Janis Bennett, SOR Liaison to the AIP, led a discussion about (1) the AIP providing supporting letters for foreign meeting participant visa applications, and (2) special covers of electronic reprints for authors.

John Brady, Editor of the *Journal of Rheology*, reported on the vigor and health of the *Journal*. The *JOR* impact factor for 2007 is 2.6, placing our journal very well compared to cognate journals. The Editor's report was accepted.

Monty Shaw, Treasurer, reports that the financial state of the Society is very good. He points out that the financial success of the ICR will significantly impact the immediate future financial health. The Treasurer's report was accepted.

Andy Kraynik, Co-Chair of the Organizing Committee for the 2008 International Congress on Rheology in Monterey led a discussion about the ICR. Jae-Chun Hyun participated as President of the International Committee on Rheology, and Manfred Wagner, as its Secretary. João Maia participated as the lead organizer for the 2012 International Congress on Rheology in Portugal. As of the time of the EC meeting, there were 1,010 delegates (699 full, 281 student and 29 invited) from 41 countries (including 93 from France, the lead-



ing foreign participation). This thus promises to be the largest rheology meeting ever. Gerry Fuller, Local Arrangements Chair for the ICR in Monterey reported on the meeting details. A very enjoyable, professionally enriching meeting is anticipated. Fuller presented a detailed, carefully prepared meeting budget. The Local Arrangements Chair's report was accepted. Kraynik led a discussion on (1) the wisdom

of our student travel grant program, and (2) the virtues of making extended abstract submission optional for the International Congress on Rheology.

Bob Prud'homme led a discussion of on our AIP position policy. A motion passed to maintain the Society's longstanding position to take no policy positions with AIP.

Shelley Anna, Chair of the Membership Committee, reported that the Society had 1427 members as of the

end of June (including 1179 regular, 226 student). This is down a little from this time last year, and below our 2007 year end total of 1518 members. The Committee now consists of Henning Winter, Patrick Anderson, Charles Lusignan, Chris White, and Saad Kahn. A motion passed to accept the Membership Chair's report. It was suggested that this small decline in membership may be due to the lack of automatic reenlistment that accompanies registration at a US SOR annual meeting.

Lynn Walker led a member-driven discussion on the creation of the Arthur B. Metzner Early Career Award, to be given to a member of the Society who is younger than 35 at the time of nomination who has distinguished him/ herself in rheological research or practice or in service to rheology. A detailed discussion was undertaken of the award statement, rules, and guidelines for this new award. The Executive Committee voted to initiate the Arthur B. Metzner Early Career Award and also voted to submit this proposal to the membership at the business meeting for approval.

Albert Co, Society Webmaster, gave a presentation on all matter of or related to the ICR 2008 website. This website was used to produce the program book and abstracts for the ICR in Monterey. The Executive Committee formally thanked Albert Co for his continuing extraordinary service to the Society and specifically in conjunction with the ICR.

Jeffrey Giacomin, Chair of Local Arrangements, gave a presentation on the next meeting of The Society of Rheology, to be held in Madison, Wisconsin (October 18-22, 2009). Local arrangements are moving along swimmingly. This meeting will feature reasonably priced accommodations for graduate students, so faculty should plan to bring their research groups. Jeff Morris will serve as Technical Program Chair for the Madison meeting. A motion was passed to accept this report.

Andy Kraynik, Chair of Local Arrangements, reported on arrangements for the Santa Fe meeting (October 24-27, 2010). Pat Mather, Chair of Local Arrangements, reported on arrangements for the Cleveland meeting (October 9-13, 2011). João Maia, lead organizer for the International Congress on Rheology in Lisbon, Portugal, reported on arrangements (August 5-10, 2012). John Brady reported on his developing a proposal with Julie Kornfield for a spring meeting (March 2013) in Pasadena. Marie-Claude Heuzey, Co-Chair of Local Arrangements with Paula Wood-Adams, reported on arrangements for the Montreal meeting (October 13-17, 2013). A motion passed to accept these reports. The Executive Committee is actively soliciting proposals for the March 2013 or for the 2014 meeting. Mike Solomon, Chair of the Education Committee, reported on short course arrangements for upcoming meetings. For the ICR in Monterey, two short courses were underway at the time of this Executive Committee meeting. "Suspension Rheology" (2 day, 54 students) by Mewis and Wagner, and "Surfactant Rheology – Self Assembly and Microstructure Dynamics", (1 day, 35 students). The next installment of "Beginning Rheology" by Morrison and Giacomin is planned for Cleveland, October 8-9 (2 day).

For the upcoming Madison meeting short course, "Mesoscopic simulation of dynamics in complex fluids", by Mike Graham and Juan Hernandez-Ortiz (2 day) is proposed on the weekend of October 17-18, 2009. A motion passed to approve this.

The Education Committee (Solomon, Vermant, McHugh, Butera, Grillet, Chow) is actively soliciting new short course proposals for the Santa Fe 2010 meeting, and beyond. A motion passed to accept the report of the Education Committee.

Bob Prud'homme led a discussion about the Wikipedia entry for the subject "Rheology". A decision was made to bring this up as a point of information at the upcoming business meeting.

Bob Prud'homme led a dialogue provoked by formerpresident John Dealy about the prospect of standardizing nomenclature for suspension rheology for The Society of Rheology.

Monty Shaw proposed to make a new batch of lapel pins with the SOR logo. This motion passed.

The meeting entered Executive Session at 4:00 pm.

Pursuant to a letter from the Internal Revenue Service, Treasurer Shaw proposed adding the following to our constitution:

"In the event of dissolution, all of the remaining assets and property of the corporation shall, after necessary expenses thereof, be distributed to another organization selected by the Executive Committee, exempt under section 501 (c) (3) of the Internal Revenue Code of 1954, or corresponding provisions of any subsequent Federal tax laws, or to the Federal government, or state or local government for public purpose."

A motion passed to present this to the membership at the upcoming business meeting for approval to proceed to a membership vote. A motion passed for Andy Kraynik to commission an artisan in Santa Fe to create 5 more hourglasses to replenish our stock of Distinguished Service Awards.

The meeting and its Executive Session adjourned at 5:39 pm.

## **Minutes of the Business Meeting**

Thursday, August 8, 2008, Monterey, CA

Bob Prud'homme called the meeting to order at 5:30 p.m. in the De Anza Ballroom I of the Portola Plaza Hotel at Monterey Bay (68 in attendance). Prud'homme recognized the special efforts in conjunction with the International Congress on Rheology of Andy Kraynik, Gerry Fuller, Bob Powell, Albert Co, Ralph Colby and Gary Leal. The minutes of the previous business meeting in Salt Lake City, Utah were read and approved without addition or correction.

Faith Morrison led a discussion on the constitutional amendment regarding the eventuality of Society dissolution. A motion was passed to put the addition to the constitution approved at the Executive Committee Meeting (see above) to a formal vote of the Society membership.

Lynn Walker led a discussion on the creation of new awards, and in particular, on the creation of the Arthur B. Metzner Early Career Award. A motion was passed that the Executive Committee be directed to proceed to implement such an award.

Each officer report and each committee report presented at the Executive Committee meeting (see above) was presented and accepted. Bob Prud'homme presented for Mike Solomon and for Monty Shaw. The officer reports were accepted. Greg McKenna asked that the levels of the Bingham Medal Award and the Metzner Early Career Awards be added to the agenda of the next Business Meeting.

The meeting was adjourned at 6:32 p.m. Submitted by Jeffrey Giacomin Secretary

## **Treasurer's Report**

#### To the membership:

While the report displays the usual five columns of information, the year 2008 has been highly unusual financially in that our normal activities have been swamped



by the large amounts associated with the International Congress of Rheology held in August, 2008. While we had paid most of the ICR bills by the end of August, we had not resolved the big ones from the hotels. Consequentially, the August report suggests that the Society made a huge amount.

## The Society of Rheology Receipts and

However, please examine the projections; our loss on the ICR is around \$90,000. Note that our net for the year is still projected to be a modest gain.

As everyone knows, financial news in the last quarter of 2008 has not been good. Returns on our investments have consequently decreased (see Receipts and Disbursements), and we will not meet budget for the Interest item. Due to our ultraconservative investment policy, however, we have not lost anything. In hindsight, we were indeed fortunate to have the financial crisis hit after the ICR rather than at the beginning of the year.

Respectfully submitted, Montgomery T. Shaw Treasurer

Disbursements					
(all amounts, USD)	2009	2008	2008	2008	2007
	Budget	Projection	August	Budget	Year End
RECEIPTS					
Dues	52,000	49,853	49,430	56,000	52,495
Interest	52,000	38,884	26,260	58,000	62,442
Journal of Rheology	283,200	295,242	253,383	258,200	274,966
Mailing List Sales	0	-1,721	-1,148	0	465
Donations	0	0	0	0	0
Bulletin Advertising	5,000	5,000	5,000	5,000	13,480
Annual Meeting (net)	0	-113,498	301,610	0	20,338
Short Course (net)	0	25,575	14,663	0	1,360
TOTAL RECEIPTS	392,200	299,335	649,198	377,200	425,546
DISBURSEMENTS					
AIP Dues Bill & Collect.	11,000	10,780	7,058	11,000	11,037
AIP Adm. Services	9,000	8,878	5,922	11,000	7,508
AIP Mem. Soc. Dues	7,600	8,119	5,413	8,000	7,909
Contributions and Prizes	12,000	373	173	1,900	1,910
Journal of Rheology	189,625	184,053	117,695	166,225	173,720
Bulletin	16,000	15,810	15,810	12,000	16,298
Bingham Award	12,000	5,000	5,000	7,000	5,000
Executive Cmt. Meetings	11,000	9,951	8,751	8,000	17,018
Pres. Discretionary Fund	1,500	750	750	1,500	0
Treas. Discr. Fund	1,500	400	0	1,500	0
Bulletin Editor Discr. Fund	1,500	1,366	1,366	1,500	0
Progr. Chm. Discr. Fund	2,000	4,000	0	2,000	2,805
Webmaster Discr. Fund	3,000	1,800	0	3,000	685
Office Expenses	3,000	2,920	2,426	3,000	3,212
Banking Services	66	70	35	100	0
Liability Insurance	4,500	4,979	0	7,500	3,830
Membership Broch. & Appl.	500	300	0	500	0
Accountant	2,100	1,940	1,940	2,100	1,910
Student member travel	24,000	10,309	0	24,000	21,468
Annual meetings, future	8,000	3,000	0	4,000	16,932
Website	500	630	420	1,000	484
Miscellaneous	500	0	0	500	0
TOTAL DISBURSEMENTS	320,891	275,427	172,759	277,325	291,724
Net	71,309	23,907	476,439	99,875	133,822

<i>Journal of Rheology</i> Receipts and Disbursements					
(all amounts, USD)	2009	2008	2008	2008	2007
	Budget	Projection	August	Budget	Year End
RECEIPTS					
Subscriptions	171,000	178,750	171,183	170,000	171,391
Royalties & Reprint Sales	23,200	18,294	8,720	10,200	17,203
Ad Sales	34,000	51,026	28,986	36,000	33,556
JORO revenue	54,000	45,384	43,969	41,000	51,816
Miscellaneous	1,000	1,788	525	1,000	1,000
TOTAL RECEIPTS	283,200	295,242	253,383	258,200	274,966
DISBURSEMENTS					
Ads	10,000	11,376	7,584	7,000	9,830
Reprints, Single Copy	1,800	1,284	1,149	1,900	1,354
Paper, Printing	24,000	22,586	13,742	20,000	22,480
SOR Editorial	39,000	36,250	26,597	41,000	36,935
Production	42,000	48,291	27,329	30,000	37,125
Fulfillment	6,425	5,947	3,821	6,425	6,025
Distribution	25,100	21,393	12,928	20,100	21,020
Electronic publishing	34,000	31,239	21,409	35,000	33,055
Miscellaneous	7,300	5,688	3,136	4,800	5,896
TOTAL DISBURSEMENTS	189,625	184,053	117,695	166,225	173,720
Net	93,575	111,189	135,688	91,975	101,246

#### The Society of Rheology, Inc. Balance Sheet

(all amounts, USD)	2008 August	2007 Year End	2007 August	2006 Year End	2005 Year End
Assets					
Cash in checking account(s)	310,962	24,466	43,583	9,777	12,721
Securities	0	0	0	0	0
Balance in AIP account	1,367,141	1,292,672	1,241,602	1,185,978	1,056,188
Total Assets	1,678,103	1,317,138	1,285,184	1,195,755	1,068,909
Liabilities and Net Assets					
Liabilities					
Deferred revenue	0	111,995	0	129,339	132,396
Total Liabilities	0	111,995	0	129,339	132,396
Net Assets					
Publication reserve	450,000	450,000	450,000	450,000	450,000
Student travel grant reserve	10,000	10,000	10,000	10,000	10,000
Annual Meeting reserve	300,000	300,000	300,000	200,000	200,000
Operating reserve	100,000	100,000	100,000	100,000	100,000
Unrestricted	818,103	345,143	425,184	306,416	176,513
Total Net Assets	1,678,103	1,205,143	1,285,184	1,066,416	936,513
Total liabilities and net assets	1,678,103	1,317,138	1,285,184	1,195,755	1,068,909

#### (ICR 2008, continued from p7)



Bingham medalists of The Society of Rheology present in Monterey included (from left) Bill Schowalter, Gary Leal, Jan Mewis, Don Plazek, Gerry Fuller, 2008 Medalist Hans Christian Öttinger, Andy Acrivos, Mort Denn, John Dealy, Kurt Wissbrun, Bill Russel, John Brady, and Henning Winter.



ICR2004 Chair Jae Chun Hyun from Korea University won the applause meter award in *Rheology Idol.* 



*JOR* Editor John Brady congratulates 2008 JOR Publication Award recipients Alexander Meyer and Eric Furst from the University of Delaware USA. Also sharing in the award were Andrew Marshall and Brian G. Bush of the University of Delaware.



2008 Bingham medalist Hans Christian Öttinger and his wife Ricarda at the Awards Banquet of ICR2008.





On behalf of SOR members and ICR attendees, SOR President Bob Prud'homme thanked those responsible for putting on ICR2008. Standing from left, Prud'homme, Albert Co, Gerry Fuller, Gary Leal, Andy Kraynik, Bob Powell, and Ralph Colby.

The 2008 Student Poster Contest produced three winners: (top to bottom with check) Roseanna Zia, Swapnil Kohale, and Shueng Tiang. The awardees are shown with (left to right) VP Sales, Marketing & Service for TA Instruments Warren Bock, session co-chair Jai Pathak, President of TA Instruments Terry Kelly, and session co-chair Nina Shapley.





investigated properties of various complex fluids and composites. His research interests included mechanical and thermodynamic properties of polymer melts and solutions, biomaterials, and dental composites.

To the Society of Rheology, Frank is best known for his pioneering work in electrorheological (ER) fluids. Several times during his career, Frank published results that changed the field of electrorheology. In the early 90s, Frank showed for the first time that the ER effect could be observed in anhydrous suspensions. This put to rest various mechanistic theories of ER relying on water in the suspensions. His group went on to probe the relationships between dielectric and rheological properties of ER suspensions. In the late 90s, Frank illustrated very nicely how the structure of ER fluids evolved from the often-observed particulate chains to particle-rich lammella. He and his collaborators showed how these structural changes resulted in transient rheological behavior. This work launched subsequent efforts by a variety of investigators. Most recently, Frank had been investigating ER fluids in compression, developing new experimental methods and illustrating anomalous behavior.

Frank will be missed by us all.

For more on Frank Filisko see www.mse. engin.umich.edu/about/news/remembering-filisko

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Photos this page courtesy of Gerald Ling.



To join The Society of Rheology, please fill out a membership application at www.rheology.org/sor/info/Membership.htm

## CALENDAR OF RHEOLOGY CONFERENCES AND COURSES

#### 2009

### 2-5 February 2009

de Gennes Discussion Conference, P. Coussot, N. El Kissi, J-F. Tassin, Chamonix France (www.degennesconference.fr/)

## 1-5 March 2009

25<sup>th</sup> Annual Meeting of the Polymer Processing Society, Goa, India, Arup R. Bhattacharya, Anup K. Ghosh (www.pps-25.com/)

## 15-17 April 2009

5<sup>th</sup> Annual European Rheology Conference AERC 2009, Cardiff UK, Tim Phillips and Phil Bowen (www.rheology-esr.org/AERC/2009/)

#### 7-12 June 2009

Short Course on Rheological Measurements, Chris Macosko, University of Minnesota, Minneapolis, MN USA (www.cems.umn.edu/rheology)

#### 15-18 June 2009

5<sup>th</sup> International Symposium on Food Rheology and Structure - ISFRS 2009, Peter Fischer, Zurich Switzerland (every 3 years; www.isfrs.ethz.ch)

#### 17-18 October 2009

SOR Short Course on Rheology *Mesoscopic Simulation of Dynamics in Complex Fluids* by Mike Graham and Juan Hernandez-Ortiz, Madison, WI USA

## 18-22 October 200981st Annual Meeting of The Society of Rheology, Madison, WI USA, Jeff Giacomin

#### 2010

*Spring 2010* 6<sup>th</sup> Annual European Rheology Conference AERC 2010, location TBA

#### 4-7 July 2010

26<sup>th</sup> Annual Meeting of the Polymer Processing Society, Banff, Canada, U. Sundararaj

## Summer 2010

5<sup>th</sup> Pacific Rim Conference on Rheology, location Hokkaido, Japan, Hiroshi Watanabe (approximately every 4 years)

*23-24 October 2010* SOR Short Course on Rheology (topic TBA), Santa Fe, NM USA

## 24-28 October 2010

82<sup>nd</sup> Annual Meeting of The Society of Rheology, Santa Fe, New Mexico USA, Andy Kraynik

## 2011

*Spring 2011* 7<sup>th</sup> Annual European Rheology Conference AERC 2011, location TBA

## Summer 2011

14<sup>th</sup> International Congress of Biorheology and the 7<sup>th</sup> International Conference on Clinical Hemorheology (held every three years), location TBA (last conference: www.outreach.psu.edu/programs/isbisch/)

## June 2011

27<sup>th</sup> Annual Meeting of the Polymer Processing Society, Marrakesh, Morocco, M. Bousmina

8-9 October 2011

SOR Short Course on Rheology (topic TBA), Cleveland, Ohio USA

*9-13 October 2011* 83<sup>rd</sup> Annual Meeting of The Society of Rheology, Cleveland, Ohio USA, Pat Mather

## 2012

## 5-10 August 2012

XVI<sup>th</sup> International Congress on Rheology, Lisbon, Portugal, João M. Lopes Maia (every four years; in 2016 in Asia)

## 19-24 August 2012

XXIII<sup>rd</sup> International Congress of Theoretical and Applied Mechanics ICTAM 2012; Beijing, China (every four years)

## 2013

*February 2013* SOR Short Course on Rheology (topic TBA), location TBA