

ILASS – Americas

The Institute for Liquid Atomization and Spray Systems

Newsletter #34

September 2010



2011 ILASS-Americas Meeting May 15-18, 2011

See page 4 for more information.

A Message from the Chair

By Greg Smallwood



It is a distinct honor to serve the atomization and spray community as Chair of the Institute for Liquid Atomization and Spray Systems – North and South America (ILASS-Americas). Our organization is the pre-eminent society for the study of liquid sprays in our hemisphere.

The goals of the organization are to promote the adoption of the best available knowledge in the field of atomization and sprays, to aid those interested in the studies in connecting and collaborating, to facilitate exchange of ideas, and to offer a forum for technical interaction. These goals are primarily achieved through the annual meeting of ILASS-Americas, which brings together industrialists, researchers, academics and students engaged in professional activities connected with the spraying of liquids. While ILASS-Americas represents members from the countries of the American continents, there are also ILASS organizations in Europe and a number of Asian countries. International interchange is promoted at the International Conference on Liquid Atomization and Spray Systems (ICLASS) which is held every three years.

In addition to the technical papers presented at the annual conference, another important mechanism for setting research priorities, documenting technical advances, and information sharing is participation in the Technical Committee meetings. These meetings take place during the an-

nual conference, and are open to all conference participants. They are an excellent opportunity to meet fellow engineers and scientists in a similar field and to discuss your challenges in sprays.

Current Technical Committees are:

- Spray Measurement and Instrumentation
- Physics of Atomization
- Rocket and Airbreathing Power Fuel Atomization and Industrial Combustion
- Computational and Modeling
- Diesel and Automotive
- Industrial and Agricultural Sprays

Within the last 12 months, ILASS-Americas has hosted two successful conferences, ICLASS 2009 in Vail, Colorado, and ILASS-Americas 2010 in Cincinnati, Ohio. While there are many exceptional members of our organization that contribute to the success of these meetings, the Local Arrangements Chair and the Program Chair deserve special applause for the tremendous effort they have put forward. For ICLASS 2009, kudos go to Corinne Lengsfeld and Terry Parker, and for ILASS-Americas 2010, our gratitude is directed to Milind Jog and Marcus Herrmann.

Another significant event to come from the ICLASS 2009 meeting was that Will Bachalo, who is expertly advising me in his role as Past Chair of ILASS-Americas, was



continued on page 2

In This Issue:

A Message from the Chair

ILASS-Americas 2010 Overview

Save the Date

Atomization and Sprays – a Letter from the Editor

Board Member Profile:

• *Dr. Jim Drallmeier*

Benefits of Membership

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*Edited by Charles W. Lipp,
Lake Innovation LLC*

*Produced by Rudolf J. Schick,
Spraying Systems Co.*

A Message from the Chair (cont.)



Heidelberg, Germany
Site of 2012 ICLASS
Conference

elected to a second role, that of President of ILASS-International. Will succeeded Antonio Cavaliere of Italy in leading the body that oversees the activities of all the regional ILASS organizations. His term in this role is from 2009 to 2012, when the next ICLASS Conference will be held in Heidelberg, Germany. Congratulations to Will!



Regarding the health of the organization, recently Charles Lipp agreed to the task of identifying what is necessary for the long-term success of ILASS-Americas. He identified three priorities – a strong and diverse technical program, sustainability, and visibility of the organization. In response, ILASS-Americas is taking action to engage the Technical Committees to improve the level of science, the quality, and the technical diversity of the extended abstracts and presentations. We are committed to engaging our participants, to ensure involvement in the organization and opportunity to become future leaders, encouraging them to return, and stimulating student involvement.

Finally, we are actively promoting the work of spray researchers through the ILASS.org website, the ILASS-Americas newsletter, and the journal *Atomization and Sprays*. I thank Charles for tackling this with gusto and tirelessly promoting the issues he identified as areas for our organization to improve upon.

We have responded with a number of new initiatives. One of the most significant in terms of information exchange is the posting of papers online at the ILASS-Americas website. Currently all ILASS-Americas [conference papers](#) presented at the 2005-2008 and 2010 meetings are available in a database that can be searched by title

and/or author. We are working to improve access for our attendees to the journal *Atomization and Sprays*. Finally, we have instituted recognition plaques to acknowledge the service provided by our volunteer members in contributing to the goals of ILASS-Americas as meeting organizers or serving as Board members.

I look forward to seeing you next year in Ventura, California at ILASS-Americas 2011!

Greg Smallwood

Chair, Institute for Liquid Atomization and Spray Systems – North and South America



ILASS – Americas 2010 Meeting Overview

By Milind Jog

The 22nd annual meeting of the ILASS-Americas was held at Hyatt Regency in Cincinnati, OH, from May 16 through 19, 2010. It was a memorable meeting with interesting technical presentations, keynote lectures, exhibits, and a panel discussion.

The conference was well attended. There were 126 participants including 27 students. We had 11 exhibitors and three sponsors. There were 57 technical papers and seven posters. The conference opened with a reception on Sunday evening in the exhibit hall. The keynote talk on Monday was given by Rodney Fox from Iowa State University on “Eulerian Quadrature-Based Moment Methods for Polydisperse Sprays.” Monday’s program included a panel discussion on “Spray Control for Maximizing Energy Efficiency and Reducing Emission of Pollutants in Combustion Engines” that was moderated by Norman Chigier. Panel members were William Bachalo, Josette Bellan, Marcus Herrmann, Rolf Reitz and Jin Wang.

On Tuesday, Alfred Mancini from GE Aviation delivered a keynote lecture on “Liquid Fuel Injection for GE Low Emissions Gas Turbine Engines.” The conference banquet was held at the Cincinnati Museum Center in the historic Union Terminal.



Rolf Reitz



Milind Jog



Vincent McDonnell, Norman Chigier and Greg Smallwood



Rodney Fox



Attendees of the 2010 ILASS-Americas Conference

Save the Date

2011 ILASS-Americas Meeting May 15-18, 2011

Save the date for the 2011 ILASS-Americas meeting on May 15-18, 2011. It will be held at the Ventura Beach Marriott in San Buenaventura (Ventura) California.



Ventura is on the southern California coast just north of Los Angeles and just south of Santa Barbara. We will offer a program of technical papers, posters and exhibitors as well as time to network with others in the spray community. Stay late or come early and enjoy a whale-watching tour or a trip to Channel Islands National Park. A call for papers will be coming soon.

ILASS Americas Awards

At each annual ILASS-Americas meeting, the organization bestows two awards for presentations given at the previous meeting.

- The **Harold C. Simmons** award is given for the best student presentation

and comes with a \$1000 honorarium generously provided by Parker Hannifin Corporation. The award is named for the founding chair of our organization who was strongly committed to the participation of students. The 2009 Simmons award was presented to Matthew Svrcek of Stanford University for his presentation entitled "Effect of Extreme Compression on Diesel Spray Penetration and Dispersion".

- The second award, the **W.R. Marshall** award, is given for the best overall paper based primarily on the importance to the field and technical content. The award is named for W. Robert Marshall, a member of the University of Wisconsin-Madison faculty for 40 years who acted as thesis advisor to many well-known UW-Madison alumni in the field of sprays. 2009's Marshall Award was presented to Neerav Abani and Rolf Reitz of the University of Wisconsin-Madison for their paper "Modeling Sub-Grid Scale Mixing of Vapor in Diesel Sprays using JetTheory".

More information on the awards and past winners can be found at the ILASS-Americas website.

ICLASS CONFERENCES

1978	Tokyo, Japan
1981	Madison, Wisconsin USA
1985	London, England
1988	Sendai, Japan
1991	Gaithersburg, Maryland USA
1992	Rouen, France
1997	Seoul, Korea
2000	Pasadena, California USA
2003	Sorrento, Italy
2006	Kyoto, Japan
2009	Vail, Colorado USA

ILASS-AMERICAS CONFERENCES

1987	Madison, WI
1988	Pittsburgh, PA
1989	Irvine, CA
1990	Hartford, CT
1991	Gaithersburg, MD (ICLASS)
1992	San Ramon, CA
1993	Worcester, MA
1994	Seattle, WA
1995	Troy, MI
1996	San Francisco, CA
1997	Ottawa, ON., Canada
1998	Sacramento, CA
1999	Indianapolis, IN
2000	Pasadena, CA (ICLASS)
2001	Dearborn, MI
2002	Madison, WI
2003	Monterey, CA
2004	Washington, DC
2005	Irvine, CA
2006	Toronto, ON., Canada
2007	Chicago, IL
2008	Orlando, FL
2009	Vail, CO (ICLASS)
2010	Cincinnati, OH



Ventura Harbor



Ventura, California

Atomization and Sprays – a Letter from the Editor

By Corinne Lengsfeld



I would like to take a moment to introduce myself as the new Editor for the Americas of *Atomization and Sprays* (AAS). This Journal is the official journal of ILASS and contains articles from a wide range of applications. The impact factor (IF) for the Journal rose in 2009 to 0.754 from 0.494 in 2008. Our 5-year impact factor is 0.842. This is the highest level the Journal has reached since inclusion in the annual Journal Citation Report. The Journal's ranking is very respectable. Using the Article Influence Index, AAS is ranked 40th out of 115 Mechanical Engineering Journals or 26th out of 79 Multidisciplinary Engineering Journals. AAS moved up the rankings more than 20 slots from 2008 to 2009. Thank you for your commitment to excellence in submission and reviewing.

The dramatic jump in IF and rank is likely an accumulation of a number of synergistic activities, but it is important to recognize the efforts of Norman Chigier and Marco Marengo to quickly publish the back log of papers through an increase in the number of annual issues as well as the number of papers published within each issue. Additionally they launched AAS's commitment to have reviewers complete the first manu-

script review cycle in two months on average. As a result, we can now claim to have a fast submission to print timeline. For these reasons, we anticipate the impact factor will continue to rise for the next few years before hitting a stable plateau.

In addition, to publishing full length research papers and review articles, AAS would like to announce that we will be accepting Short Letters (or Notes). Room within each issue has been allocated for these short communications which means that the submission to publication time will be substantially reduced over full length papers.

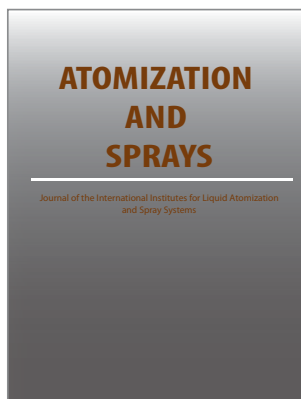
Based on your input from Cincinnati, I hope to announce shortly automated indices emails with each publication. This feature will become active on the AAS website prior to the 2011 meeting.

As the new Editor of the Americas, I am committed to making AAS your first choice to publish spray related work. I invite all of you to submit a manuscript today or begin a discussion with me regarding a review article. If you want to become a reviewer for AAS, send me an email.

I look forward to working with you.

Best regards –

Corinne Lengsfeld
Editor-in-Chief America



Board Member Profile

Dr. Jim Drallmeier



Dr. Jim Drallmeier became a member of ILASS in 1987 as a doctoral student working in the area of spray diagnostics and has been on the Board since 2002. He primarily works in promoting activities of the Technical Committees. He has served as technical program chair for two prior meetings as well as paper awards chair.

Jim initially became involved with ILASS due to its in-depth coverage of atomization and spray topics which are not covered well by other technical societies. He feels the fundamental and applied work presented by those in industry, academia and labs provides a

view to the state-of-the-art for those new to the field as well as providing an engaging discussion forum to long time members. As an academic, Jim has been a strong proponent of ILASS as venue for students' technical presentations and interaction with professionals as part of their educational process.

Jim is Professor of Mechanical Engineering in the Department of Mechanical & Aerospace Engineering at Missouri University of Science and Technology (formerly the University of Missouri-Rolla). His research interests include: combustion, laser based diagnostics for sprays and combustion, optical measurement systems and internal combustion engines.

OFFICERS

CHAIR

Dr. Greg Smallwood
National Research Council Canada,
Institute for Chemical Process and
Environmental Technology
(613) 993-1391
greg.smallwood@nrc-cnrc.gc.ca

VICE-CHAIR

Mr. Rudolf J. Schick
Spray Analysis & Research Services,
Spraying Systems Co.
(630) 517-1409
rudi.schick@spray.com

SECRETARY

Dr. Vincent G. McDonell
UCI Combustion Laboratory
University of California, Irvine
(949) 824-5950 x121
mcdonell@uci.uci.edu

TREASURER

Dr. Douglas G. Talley
Air Force Research Laboratory
(661) 275-6174
Douglas.Talley@edwards.af.mil

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Missouri University of Science
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(573) 341-4710
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Professor Ken Giles
University of California Davis
Biological & Agricultural
Engineering Department
(530) 752-0687
dkgiles@ucdavis.edu

Professor Corinne Lengsfeld
University of Denver
Department of Engineering
(303) 871-4843
clengsfe@du.edu

Mr. Charles W. Lipp
Lake Innovation LLC
(979) 418-1377
chuck@lakeinnovation.com

Dr. Scott Parrish
General Motors
(586) 986-0692
scott.parrish@gm.com

Dr. David P. Schmidt
Assoc. Professor
University of Massachusetts, Amherst
Mechanical and Industrial Engineering
(413) 545-1393
schmidt@ecs.umass.edu

The Benefits of Membership in ILASS-Americas

Sometimes it is easy to take things for granted — and we all do it from time to time — but we'd like to take just a moment to review the benefits you experience as a member.

- Annual conferences offer the ideal environment for staying on the leading edge of technology and networking.
- Six technical committees are hard at work developing industry standards, identifying emerging technologies and promoting exchanges of information between the world's leading experts. Be a part of it!
- Do you have a specific problem you'd like to discuss with your peers right now? Log onto the ILASS-Americas Discussion Board, where you can instantly network with other experts in your field.
- The ILASS newsletter keeps members apprised of upcoming events so you won't miss important educational opportunities and technical articles.

- Our Harold C. Simmons and W.R. Marshall awards recognize and encourage the next generation of industry experts. Can you recommend any worthy candidates?

Encourage someone to join ILASS-Americas

Membership in ILASS-Americas is affordable for all. A one-time \$20 membership fee is all it takes to tap into the resources and benefits just noted. Why don't you take just a moment and encourage your colleagues and associates to consider joining? You'll be ensuring the continued growth and longevity of our professional association.

To become a member of ILASS-Americas, complete the application below and mail to:

Professor Scott Samuelsen
Secretariat, ILASS-Americas
UCI Combustion Laboratory
University of California
Irvine, CA 92697-3550

Membership Application Form

I wish to become a member of ILASS-Americas. I enclose a check/money order for \$20.00 in U.S. currency payable to "ILASS-Americas." (Please print or type full name, title and mailing address.)

Name (Dr./Prof./Mr./Ms.): _____

Title/Position: _____

Organization/Affiliation: _____

Mailing Address: _____

Telephone: _____ Fax: _____

E-mail: _____

Signature: _____ Date: _____

Office Use Only

Date Received: _____ Membership Number: _____