



American Institute of Chemical Engineers Knoxville-Oak Ridge Section

For additional information see our Web site at: <http://www.ornl.gov/sci/aiche/>
Or contact: Linda Puckett, puckettlf@ornl.gov, (865)574-6147 or
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September 2010 Meeting

Date: Thursday, September 16, 2010
Cost: \$20.00
Location: Calhoun's, Turkey Creek Shopping Center, Knoxville TN

5:30 pm AIChE Executive Committee Meeting (All members welcome),
6:00 pm Dinner – From menu
7:00 pm Program – Dr. Douglas B. Kothe, Director of the Consortium for Advanced Simulation of Light Water Reactors, Oak Ridge National Laboratory – CASL:
The Consortium for Advanced Simulation of Light Water Reactors



Abstract - The Consortium for Advanced Simulation of Light Water Reactors (CASL), one of 3 newly-funded DOE Energy Innovation Hubs, brings together an exceptionally capable team that will apply existing modeling and simulation capabilities and develop advanced capabilities to create a usable environment for predictive simulation of light water reactors (LWRs). This environment, designated the Virtual Reactor (VR) enables the use of leadership-class computing for engineering design and analysis to improve reactor capabilities, 2) promotes an enhanced scientific basis and understanding by replacing empirically based design and analysis tools with predictive capabilities, 3) is the foundation for developing a highly integrated multiphysics environment for engineering analysis through increased fidelity methods, and 4) incorporates uncertainty quantification (UQ) as a basis for developing priorities and supporting application of the VR tools for predictive simulation.

Bio – Doug Kothe has more than 25 years of experience in computational science research, with his interests and expertise centered on developing physical models and numerical algorithms for simulating physical processes in the presence of incompressible and compressible fluid flow. Before joining ORNL in 2006, Doug was Deputy Program Director for Theoretical and Computational Programs in the Advanced Simulation and Computing (ASC) program at Los Alamos National Laboratory (LANL). Doug received his B.S. in chemical engineering from the University of Missouri–Columbia and his M.S. and Ph.D. in nuclear engineering from Purdue University. Additional biographical information is at: <http://www.ornl.gov/sci/aiche/calendar.html>.

Please make your reservations by September 15 by contacting

Linda Puckett, puckettlf@ornl.gov, (865)574-6147 or
Lori Daniels, lori.daniels@utk.edu, (865)974-2421

***The Section will subsidize up to 15 students,
including graduate students***

Vols4STEM 2010 Plan

Vols4STEM is a resource of the Innovation Valley area intended to facilitate the voluntary collaboration of its Science Technology, Engineering, and Math (STEM) professional community, STEM employers, STEM educators and other stakeholders. Vols4STEM was conceived as a means to improve K-12 STEM education and workforce development, primarily by getting more STEM professionals engaged, as volunteers, in STEM outreach activities to area youth.

2010 Objectives

- I. Develop Points of Contacts at each Knox County middle and high school

- II. Engage other Innovation Valley school districts (Oak Ridge Schools, Roane County Schools, Maryville, Alcoa, Blount County, and Anderson County)
- III. Grow volunteer base and send out volunteer opportunities at least once a month (perhaps in newsletter form)
- IV. Make the www.vols4stem.org website a “one-stop-shop” for all things STEM education related
- V. More intentional K-5 outreach
- VI. Seek strategic partnerships with community and organizations and gain local and national recognition
- VII. Recognize excellence in STEM achievement, partnerships, and other key qualities we would like to acknowledge

Additional information on Vols4Stem can be found at: www.vols4stem.org.



(Photo courtesy of DOE Photo Archive, <http://www.doedigitalarchive.doe.gov/>)

“A computer once beat me at chess, but it was no match for me at kick boxing.”

Emo Philips

American Entertainer/Comedian

1956-

Activities Calendar

Date	Time	Topic	Speaker	Location
Sept 16	6:00 PM	Consortium for Advanced Simulation of Light Water Reactors	Doug Kothe, ORNL	Calhoun's, Turkey Creek, Knoxville TN
Oct 21	6:00 PM	TBD	TBD	Calhoun's, Turkey Creek
Nov 7-12		2010 AIChE Annual Meeting		Salt Lake City, UT
Nov 18	6:00 PM	Reconciling Large-Scale Bioenergy Production with Social and Environmental Concerns	Keith Kline, ORNL	Calhoun's, Turkey Creek
Dec 9	6:00 PM	Financial Planning	David Moon	Calhoun's, Turkey Creek
Jan 20	6:00 PM	TBD	TBD	Calhoun's, Turkey Creek
Feb 17	6:00 PM	Dark Energy – Dark Matter	Mike Guidry, UT	Calhoun's, Turkey Creek
Mar 17	6:00 PM	TBD	TBD	Calhoun's, Turkey Creek
Mar 28-31		SASEF 2011 – 60 th Anniversary		Thompson-Boling Arena, Knoxville, TN
Apr 21	6:00 PM	Student Awards	TBD	Calhoun's, Turkey Creek
May 5	6:00 PM	TBD	TBD	Calhoun's, Turkey Creek

Sponsoring Opportunities

We continue to accept advertising in the newsletter in order to provide funds to support student participation in the meetings.

Rates per newsletter are:

\$80 full-page advertisement

\$45 half-page advertisement

\$25 quarter-page advertisement

The section will also continue to accept individual or corporate sponsors to provide student meals at section meetings. The sponsor will be recognized at the meeting and in the Newsletter.

The cost to sponsor one meeting is **\$200**. It's a great way to encourage students to attend the local meetings and become future members in the Institute!



(Photo courtesy of DOE Photo Archive, <http://www.doedigitalarchive.doe.gov/>)

Officers

Chair:	Jacob Hutton	560-1706	jacob.hutton@power.alstom.com
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Secretary:	David DePaoli	574-6817	depaolidw@ornl.gov
Treasurer:	Paul Taylor	574-1965	taylorpa@ornl.gov
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Term ends 2012	Stuart Daw	946-1341	dawcs@ornl.gov
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"You have to learn the rules of the game. And then you have to play better than anyone else."

Albert Einstein
*Theoretical
 physicist/philosopher
 1879-1955*

Knoxville - Oak Ridge Section

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We're on the Web!

See us at:

<http://www.ornl.gov/sci/aiche/>

Editor: B. Lewis

About Our Organization...Membership Networking Opportunities

AIChE provides a number of networking opportunities to build and maintain a meaningful network and get ongoing career support and inspiration from colleagues.

Local Section

Membership – AIChE local sections provide grass-roots support for the Institute, essential to meeting the needs of chemical engineers locally. With over 100 AIChE locations, you don't need to go very far to meet colleagues who share your interests.

Beyond networking opportunities, your local section gives you the support you need to grow professionally and personally. In addition to regular meetings, you will find technical seminars, training courses, plant tours, grants, and roundtables on local

issues. Many local sections also sponsor student programs with colleges and universities, and community activities and social events.

Technical Divisions and Forums

– In the fast evolving chemical engineering profession, AIChE's divisions and forums will keep you on the cutting edge of your specialty. Beyond just technical information, divisions and forums give you opportunities for affiliation with top engineers in both general disciplines and emerging fields like biotechnology and sustainability.

Divisions and forums provide programming for AIChE's technical meetings, and awards and recognition to outstanding chemical engineers in their area of expertise. Join divisions or forums to meet new colleagues,

exchange ideas, discuss the latest trends, and build lasting business relationships.

Congratulations to the East Tennessee Local Section! They will host the 2010 Leadership Development Conference from June 4-6. Additional information will be available in the near future.

On-line Member

Directory – Keep in touch with members across the country. Networking with your fellow chemical engineers is critical to your career and also provides a social network wherever you live.

AIChE's various groups help foster this network.

Source:

<http://www.aiche.org/CareersEducation/Networking/index.aspx>

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