

Calendar

Wednesday, Sept. 12

THERE WILL BE NO FERMILAB ILC R&D MEETING THIS WEEK

2:30 p.m.

[Special Theoretical Physics](#)

[Seminar](#) - Curia II (NOTE DATE)

Speaker: U. Nierste, Universität Karlsruhe
Title: B_s -anti- B_s Mixing and

Supersymmetry

3:30 p.m.

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

4 p.m.

[Fermilab Colloquium](#) - One

West

Speaker: G. Crabtree, Argonne National Laboratory

Title: The Global Energy Challenge

Thursday, Sept. 13

1 p.m.

[ILC ALCPG Physics and Detector R&D Seminar](#) - West

Wing, WH-10NW

Speaker: A. Mezzacane, INFN, Lecce

Title: Jet Reconstruction and Resolutions for Dual Readout Calorimetry

2:30 p.m.

[Theoretical Physics Seminar](#) -

Curia II

Speaker: G. Villadoro, Harvard University

Title: A Measure of de Sitter Entropy and Eternal Inflation

3:30 p.m.

DIRECTOR'S COFFEE BREAK - 2nd Flr X-Over

4 p.m.

[Accelerator Physics and Technology Seminar](#) - One

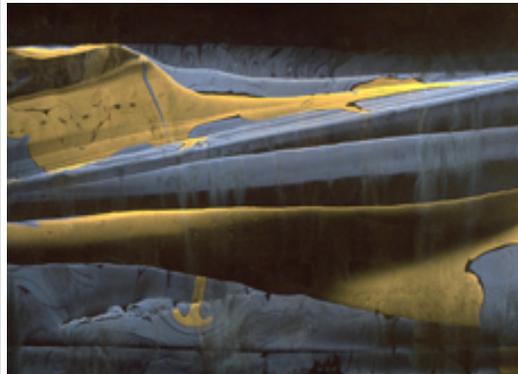
West

Speaker: M. Chung, Princeton Plasma Physics Laboratory

Title: Studies of Charged Particle Beam Dynamics on the Paul Trap Simulator

Feature

Probability of Certainty; Reception on Friday, Sept. 14



To artist and engineer Amy Lee Segami, water is no ordinary substance - it is her canvas. Using her knowledge of fluid mechanics, Segami paints on water in a contemporary version of the ancient Asian art form of Suminagashi. Her latest exhibit, *Probability of Certainty*, is on display at the Fermilab Art Gallery through Nov. 1.

Segami drips acrylic paint on the surface of water and then uses a variety of tools, such as traditional Chinese brushes, feathers, acupuncture needles, and sticks, to create turbulent and laminar flow patterns that give her art a three-dimensional quality. Adding color to the patterns shows how the water is moving and "makes the invisible visible," Segami said.

Once she has completed a pattern, she lays rice paper over the water to quickly capture it.

Segami, who has a bachelor's degree in mechanical engineering and a master's degree in mechanical aerospace engineering, says her paintings are a balance of probability and certainty. While she is certain about the properties of fluid mechanics and how the water will react, she is never really sure how well the colors will illustrate the flow patterns.

Segami was drawn to Suminagashi because of its resemblance to experiments in fluid mechanics. In her opinion, Suminagashi is a natural fit because it combines the two things she loves - science and art.

"People often think of art and science as two completely different things, but they truly

From the Accelerator Physics Center

Time to build bridges in accelerator education

Today's column is written by Vladimir Shiltsev, director of the Accelerator Physics Center

Where do we get new accelerator talent from? How can we make sure we will have innovative and creative accelerator builders and operators available for our near-term accelerator projects and beyond?



Vladimir Shiltsev

What needs to be done to ensure the health of the field of accelerators? These are vital questions for any research organization that has the word "accelerator" in its name.

Recent analysis shows that out of almost 100 accelerator scientists and advanced engineers now working at Fermilab, about 60 joined the laboratory in the last 10 years. The biggest influx came from abroad, including China, Russia and Europe. A somewhat smaller number of new accelerator researchers came from other fields, mostly from high-energy physics experiments. Only eight of the new staff scientists received training in the field of accelerator physics at U.S. universities and national laboratories, including Fermilab.

For a variety of reasons, including a growing demand for accelerator physicists in other countries, fewer foreign scientists are coming to the United States. The influx from the HEP research program has its ups and downs, which we can not easily control. If Fermilab wishes to maintain and strengthen a leading position in accelerator-based HEP research, we need to take serious steps to strengthen our own capabilities of training the next generation of accelerator scientists.

Luckily, we have some pieces already in place to build a successful accelerator education program. For many years we have had a functioning Accelerator Ph.D. program and an Accelerator Summer Student program. Fermilab also hosts the office of the U.S. Particle Accelerator School, which is a joint enterprise of major U.S. national laboratories.

Experiment (PTSX)

[Click here](#) for NALCAL, a weekly calendar with links to additional information.

Weather



Sunny 64°/42°

[Extended Forecast](#)
[Weather at Fermilab](#)

Current Security Status

[Secur Level 3](#)

Wilson Hall Cafe

Wednesday, Sept. 12

- Vegetable beef
- Fish & chips
- Smart Cuisine: grilled salmon
- Country fried steak w/pepper gravy
- Beef & cheddar panini w/ sauteed onions
- Assorted sliced pizza
- Cavatappi pasta w/Italian sausage & tomato ragu

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Sept. 12

Lunch

- Stuffed summer vegetables
- Fresh ginger cake

Thursday, Sept. 13

Dinner

Closed

[Chez Leon Menu](#)

Call x4598 to make your reservation.

Archives

balance each other," Segami said.

An artist reception will be held from 5 to 7 p.m. on Friday, Sept. 14, in One West. The public can visit the [Fermilab Art Gallery](#) before and after Arts, Lectures and Film Series events as well at the artist's reception.

-- *Amelia Williamson*

Feature

GSA elects new officers

The Fermilab Graduate Student Association officers for 2007-2008 are: Jorge Benitez, DZero; Tyler Dorland, DZero; Rob Forest, CDF; Elisabetta Pianori, CDF; and Emanuel Strauss, DZero.

They will immediately replace outgoing officers Jennifer Gimmell, CDF; Jason Koskinen, MINOS; Kendall Mahn, MiniBooNE and SciBooNE; Mandy Rominsky, DZero; and Sarah Schlobohm, DZero.

More information on the newly elected candidates and the GSA can be found on the [GSA Web site](#).

In the News

No end in sight for FY 2008 appropriations bills

From *AIP FYI*, Sept. 5, 2007

The House and Senate returned to Washington yesterday, with less than four weeks to go until the start of the new fiscal year. The outlook for the completion of the FY 2008 budget cycle is still very uncertain; the only certainty is that it will not be completed by September 30.

Senate floor scheduling has traditionally been one of the major obstacles to enacting appropriations bills, and it has proven to be so again this year. The House Appropriations Committee has completed work on all twelve of the appropriations bills, and all have been passed by the House. The Senate Appropriations Committee has completed work on all but the defense bill, but only one of these bills - for the Department of Homeland Security - has been passed by the Senate.

[Read more](#)

We are developing closer ties with Argonne and its Accelerator Institute. It also seems that more universities and professors involved in HEP research turn to accelerator physics because it is an exciting field and because they want to contribute to projects such as the proposed International Linear Collider.

To strengthen U.S. accelerator education, the Fermilab Accelerator Physics Center is now actively involved in discussions about organizing a Fermilab-Argonne-Universities consortium. The time is right to build bridges across generations, programs, divisions, laboratories and universities to ensure the future of the field.

Announcements

Have a safe day!

A-0 parking lot closures Sept. 14

On Friday, Sept. 14, the north end of A-O parking lot will be closed for crack filling, seal coating, and re-striping. That section will reopen on Monday, Sept. 17. The south half of the A-O lot will be closed Sept. 17 for similar work. Please use the far west Wilson Hall lot and the gravel over-flow lot across from Booster West for alternate parking. All work will be weather dependent.

TIAA- CREF financial education seminar

On Sept. 13, 2007, TIAA-CREF will hold a financial education seminar titled "Your Retirement Income Options." Chad Stein will present the seminar, which focuses on several types of available income options. Attendees will obtain a basic understanding of how to select income options to fulfill their needs upon retirement. Enroll online [here](#). Review the information about the seminar [here](#).

Buffalo Fest on Friday

From 4 to 6 p.m. Friday, Sept. 14, the Users' Center will host Buffalo Fest on its patio. Buffalo burgers and sausage are \$5 each; hot dogs are 2 for \$5. All sandwiches come with chips. No Fermilab buffalo were harmed for this festival.

International Folk Dancing Thursday

International Folk Dancing will meet Thursday, Sept. 13, at Kuhn Barn on the Fermilab site. Dancing begins at 7:30 p.m. with teaching and children's dances earlier in the evening and request dancing later on. Newcomers are welcome. You do not need to come with a partner. Information at (630) 584-0825 or (630) 840-8194 or folkdance@fnal.gov.

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[ILC NewsLine](#)

Info

Fermilab Today
is online at:
www.fnal.gov/today/

Send comments and
suggestions to:
today@fnal.gov

[Additional Activities](#)