

# 46<sup>th</sup> Fermilab Users Meeting

June 12-13, 2013 Ramsey Auditorium, Fermilab

## Fermilab Users Meeting

How do you turn experimental data into a theory, astroparticle, and neutrino physics and presentations on future projects. Featuring talks and posters from outstanding young physicists.

[www.fnal.gov/orgs/fermilab\\_users\\_org/users\\_mtg/](http://www.fnal.gov/orgs/fermilab_users_org/users_mtg/)

*Nikos Varelas*

*University of Illinois at Chicago*

*UEC Chair*

### Public Lecture

June 12, 8 pm

**Dr. Sean Carroll** *California Institute of Technology*

### Special Events

June 12, 3:40 pm

*The International Linear Collider - A Worldwide Event  
From Design to Reality*

June 13, 4 pm

*Director Pier Oddone Farewell Symposium*

**Fermilab**  
**UEC**

**June 12-13, 2013**



# Safety First

Standing in the aisles, sitting on the stairs or in front of exit doors is not permitted - *please find a seat.*

In the event of a fire, depart using the nearest exit. Exits are located at the base of the stage, rear corners of the auditorium and through the main doors of the auditorium located at the back.

For other emergencies you will be provided with voice instructions as to actions to be taken.

Smoking is prohibited in this building. The designated smoking area is outside the building on the grass. Use provided receptacles for smoking debris.

Restrooms are located through the rear exit doors on the far side of the lobby.



# Users Executive Committee

**Nikos  
Varelas**



**Mary Anne  
Cummings**



**Craig  
Group**



**Sergo  
Jindariani**



**Dan  
Kaplan**



**Ryan  
Patterson**



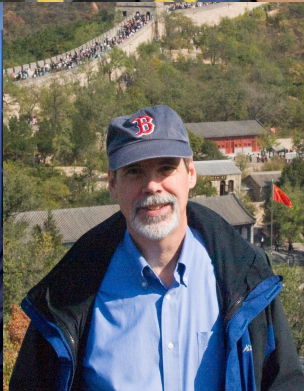
**Greg  
Pawloski**



**Breese  
Quinn**



**Lee  
Roberts**



**Mandy  
Rominsky**



**Greg  
Snow**



**Bob  
Zwaska**



Nikos Varelas ♦ UIC

Users Meeting – June 12-13, 2013

# Users Meeting Support

Sergo  
Jindariani



**Send your slides to Sergo and Bob  
to upload them to the agenda  
([sergo@fnal.gov](mailto:sergo@fnal.gov), [zwaska@fnal.gov](mailto:zwaska@fnal.gov))**



Bob  
Zwaska



# Special Events

**Wednesday at 3:40 pm**



**The International Linear Collider  
– A Worldwide Event**  
From Design to Reality

**12 June 2013**  
Tokyo, Geneva, Chicago

[www.linearcollider.org/worldwideevent](http://www.linearcollider.org/worldwideevent)

**ilc**

**Thursday at 4 pm**

*Farewell Pier*

*You are cordially invited to attend  
these farewell events that will be held in his honor:*

*Symposium*  
**Thursday, June 13, 4 to 5:45 p.m., Ramsey Auditorium**  
Enjoy a series of lively and fast-paced presentations that highlight Fermilab's many achievements and milestones during Pier's time as director.

*Reception following symposium*  
**Thursday, June 13, begins at 6 p.m., Atrium, Wilson Hall**  
Join your fellow employees and users for refreshments, hors d'oeuvres and conversation.

*Cake and ice cream with Pier*  
**Date and time in July TBD, Atrium, Wilson Hall**  
Fermilab employees will have a chance to say goodbye and enjoy celebratory cake and ice cream in the Atrium.



After eight years as director of Fermilab, Pier Oddone is retiring.

**Fermilab**

U.S. DEPARTMENT OF **ENERGY** | Office of Science

# Social Program

- Coffee Breaks each morning and afternoon in atrium
- Banquet is today at 5:45 pm in atrium
  - Gourmet BBQ (with vegetarian options)
  - Poster session at same time
  - Registration for Users Meeting is required
- Public lecture by Sean Carroll at 8 pm in Ramsey Auditorium
  - Tickets are required, not included in Users Meeting registration
  - Graduate students can get tickets for free with Fermilab ID
- Festa Italiana at 9 pm in Kuhn Barn
- Reception tomorrow at 6 pm after Pier Oddone's Farewell Symposium





# The Program

## WEDNESDAY, JUNE 12

### Session Chair Nikos Varelas

- 09:00 Welcome  
N. Varelas, *UIC*
- 09:05 The Fermilab Program for the Next Decade  
Y.-K. Kim, *Fermilab*
- 09:20 Recent Results from the Tevatron  
A. Jung, *Fermilab*
- 09:45 SM Results from the LHC  
J. Guimaraes da Costa, *Harvard*
- 10:10 Beyond the SM Searches from the LHC  
P. Tan, *University of Iowa*
- 10:35 BREAK

### Session Chair Sergo Jindariani

- 10:50 Tevatron Higgs  
K. Knoepfel, *Fermilab*
- 11:10 LHC Higgs  
J. Koningsberg, *University of Florida*
- 11:35 Frontiers of the Standard Model and Beyond  
B. Dobrescu, *Fermilab*
- 12:00 LUNCH

### Session Chair Breese Quinn

- 13:00 Status of the Fermilab Accelerator Complex  
I. Kourbanis, *Fermilab*
- 13:20 MINOS  
A. Radovic, *University College London*
- 13:40 NOvA  
M. Frank, *University of Virginia*
- 14:00 MINERvA  
P. Rodrigues, *University of Rochester*
- 14:20 Sci/Mini/MicroBooNE  
C. Mariani, *Virginia Tech*
- 14:45 DOE Report  
J. Siegrist, *DOE*
- 15:05 DPF/Snowmass Report  
J. Rosner, *University of Chicago*
- 15:20 BREAK

### ILC Event: From Design to Reality Chair: J. Lykken, *Fermilab*

- 15:40 Introduction to Program, Hand-off from Europe  
J. Brau, *University of Oregon*
- 15:55 ILC Physics  
J. Lykken, *Fermilab*
- 16:10 ILC Detectors  
J. Brau, *University of Oregon*
- 16:30 ILC Accelerator  
N. Phinney, *SLAC*
- 16:55 ILC Accelerator and Detector Technology in U.S. Industry  
K. Olsen, *SPAFOA*
- 17:15 Superconducting RF as an Enabling Technology  
M. Tigner, *Cornell University*
- 17:35 Presentation of the TDR to ICFA  
Chair by the GDE Director  
B. Barish, *Caltech*  
P. Oddone, *Fermilab*

### 17:45 BANQUET AND FSPA POSTER SESSION Wilson Hall Atrium

### 20:00 Public Lecture Ramsey Auditorium "Particles, Fields, and the Future of Physics"

Sean Carroll, *Caltech*

### 21:00 FESTA ITALIANA Kuhn Barn

## THURSDAY, JUNE 13

### Session Chair Bob Zwaska

- 08:30 Scientific Computing  
A. Lyon, *Fermilab*
- 08:50 Project X Accelerator  
S. Holmes, *Fermilab*
- 09:15 Project X Research Program  
R. Tschirhart, *Fermilab*
- 09:40 ORKA  
J. Lewis, *Fermilab*
- 10:00 Mu2e  
B. Echenard, *Caltech*
- 10:20 BREAK

### Session Chair Gregory Snow

- 10:40 LBNE  
J. Raaf, *Fermilab*
- 11:00 g-2  
P. Winter, *Argonne National Laboratory*
- 11:20 URA Visiting Scholars  
M. Cehelsky, *URA*
- 11:25 URA Tollestrup Award  
A. Tollestrup, *Fermilab*, S. Beering, *URA*
- 11:30 En Route to the Electroweak Symmetry Breaking  
Y. Gao, *Fermilab*
- 11:50 URA Thesis Award  
S. Beering, *URA*
- 11:55 Precision Measurement of CP Violation in Charm Decays at CDF  
A. Di Canto, *University of Pisa*
- 12:15 LUNCH

### Session Chair Lee Roberts

- 13:15 SeaQuest  
K. Liu, *Los Alamos National Laboratory*
- 13:35 Illinois Accelerator Research Center  
R. Kephart, *Fermilab*
- 13:55 Muon Accelerator / nuSTORM  
J.-P. Delahaye, *SLAC*
- 14:15 Dark Matter Searches  
H. Lippincott, *Fermilab*
- 14:35 Dark Energy Searches  
M. Carrasco Kind, *University of Illinois*

- 14:55 The Pierre Auger Observatory  
Eun-Joo Ahn, *Fermilab*
- 15:10 FSPA Report  
L. Aliaga Soplin, *College of William and Mary*
- 15:20 UEC Report  
N. Varelas, *UIC*
- 15:40 BREAK

### Director Pier Oddone Farewell Symposium

Chairs: Y.-K. Kim, *Fermilab*  
N. Varelas, *UIC*

- 16:00 Welcome  
Y.-K. Kim, *Fermilab*, N. Varelas, *UIC*
- 16:05 The Last Eight Years  
Y.-K. Kim, *Fermilab*
- 16:15 Fermi Site Office  
M. Weis, M. Bollinger
- 16:20 DOE  
J. Siegrist, D. Kovar, W. Brinkman
- 16:30 Fermi Research Alliance  
S. Beering, *URA*, D. Levy, *Univ. of Chicago*
- 16:40 The Cosmic Frontier  
J. Frieman, *Fermilab*
- 16:50 The Fermilab Accelerator Complex: In and Beyond the Oddone Era  
S. Holmes, *Fermilab*
- 17:00 Exploring the Energy Frontier with the Tevatron  
L. Ristori, *INFN/Fermilab*
- 17:10 CMS and the Large Hadron Collider  
I. Shipsey, *Purdue University*
- 17:20 Road to the Intensity Frontier  
B. Fleming, *Yale University*
- 17:30 International Collaboration  
S. Mishra, *Fermilab*  
S. Soldner-Rembold, *Manchester*
- 17:45 Concluding Remarks  
Y.-K. Kim, N. Varelas

### 18:00 RECEPTION Wilson Hall Atrium



# Enjoy the Meeting

CAIF  
Fermilab Users & Friends are invited to the  
**Festa Italiana 2013**  
Fermilab Village Barn  
June 12, 2013 9 PM



Fine Italian coffee, wines, grappa, and pastries  
Italian music and songs

Sponsored by the Fermilab Users Association, and  
CAIF, the Cultural Association of Italians at Fermilab

Contacts: Giorgio Bellettini: 630-840-2635, giorgio@fnal.gov  
Giovanni Maria Piacentini: 312-730-0416, namsi@fnal.gov  
Gianluca Introzzi: 630-840-8426, introzzi@fnal.gov  
Kappatolia E. Sherman: 630-840-3811, Kappy013@fnal.gov

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**Information & Registration**  
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12 June 2013  
Tokyo, Geneva, Chicago  
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**Farewell Pier**  
You are cordially invited to attend  
this farewell event that will be held in the hours  
before the shutdown of the Fermilab main ring.

**Symposium**  
Thursday, June 13, 4 to 5:45 pm, Ramsey Auditorium  
Enjoy a series of talks and posters on the future of Fermilab's early acceleration and detectors during this time as we reflect on the past and look forward to the future.

**Reception following symposium**  
Thursday, June 13, 5:45 to 6:45 pm, Wilson Hall  
Join your fellow employees and friends for refreshments, cake and ice cream with Pier.

**Date and time to say TEO** Auditorium, Wilson Hall  
Fermilab employees will have a chance to say goodbye and enjoy celebratory cake and ice cream in the Auditorium.

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