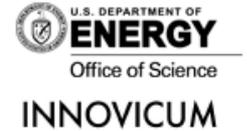




# *the* ART OF EXPERIMENT



A SYMPOSIUM TO CELEBRATE FORTY YEARS OF ADVANCES, 1974–2014

HONORING **DAVID NYGREN**

LAWRENCE BERKELEY NATIONAL LABORATORY, MAY 2–3, 2014



## Introduction and Welcome

# Organization, Logistics, and Safety

- This will be a 2 day meeting with all sessions held here in the Building 50 Auditorium
- Please register if you have not. Administrative support present at tables in the lobby.
- Breaks in AM and PM here and lunches on the terrace of 50C. Follow the leaders down.
- Banquet this PM, directions and transport will be presented later today.
- Shuttle bus provided on Sat., please sign up at the Admin table, stops at major hotels.

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## Friday, May 2, 2014

## Building 50 Auditorium

09:00	Introduction	Carl Haber
09:10	Welcome	Natalie Roe & Paul Alivisatos
	<b>Flavor Physics</b> ( <i>William Carithers, Chair</i> )	
09:15	Challenges for Rare Kaon Experiments	Laurence Littenberg
09:45	How Technological Innovations Could Influence the Physics Potential of <i>b</i> Physics at Hadron Colliders	Sheldon Stone
	<b>Time Projection Chambers and Gaseous Detectors</b> ( <i>Harry van der Graaf, Chair</i> )	
10:15	Study of Relativistic Nuclear Collisions at the Terascale: Status of and Future Plans for the ALICE TPC	Peter Braun-Munzinger
10:45	Break	
11:15	Liquid Argon TPCs for Neutrino Physics	Sam Zeller
11:45	Gaseous Detectors: A Continuing Success Story <b>Semiconductor Detectors &amp; Electronics</b> ( <i>Peter Weilhammer, Chair</i> )	Fabio Sauli
12:15	SiD - A Silicon Detector for the ILC	Marty Breidenbach
12:45	Lunch - 50C Patio - 3rd Floor	
14:00	Pixels at the LHC	Maurice Garcia-Sciveres
14:30	Fully Depleted Charge-Coupled Devices for Scientific Applications: A Spin Off from Silicon Detectors for HEP	Steve Holland
15:00	The ARIANNA Ultra-High-Energy Neutrino Experiment	Stuart Kleinfelder
15:30	Break	
	<b>Biology and Applications</b> ( <i>William Moses, Chair</i> )	
16:00	Photon Counting Medical X-ray Imaging from Mammography to CT	Mats Danielssen
16:30	Developments in Hard X-ray Optics - Towards <i>nm</i> Resolution	Bjorn Cederstrom
17:00	Particle Physics Science and Technology Connections	James Siegrist
	<i>Banquet Dinner - Hong Kong East Ocean Restaurant</i>	
20:00	Banquet Dinner Talk	Pier Oddone

## Saturday, May 3, 2014

## Building 50 Auditorium

	<b>Opening Session</b> ( <i>William Chinowsky, Chair</i> )	
09:00	David Nygren, Valued Collaborator and Friend	Jack Steinberger
	<b>TPC (PEP4) and Other Reminiscences</b> ( <i>Pier Oddone, Chair</i> )	
09:30	Looking Back 40 Years - Recollections of the History and Development of the PEP-4 TPC	Jay Marx
10:00	Panel Discussion	Hiroaki Aihara, Alan Bross Angela Galtieri, Nicholas Hadley Peter Robrish, Marjorie Shapiro
10:30	NESTOR	Leonidas Resvanis
10:45	Break	
	<b>Neutrino Astronomy</b> ( <i>Per Olof Hulth, Chair</i> )	
11:15	From the Digital Optical Module to Cosmic Neutrinos	Francis Halzen
12:00	Lunch - 50C Patio - 3rd Floor	
	<b>Double Beta Decay</b> ( <i>Leonidas Resvanis, Chair</i> )	
13:15	The NEXT Experiment	Juan José Gómez Cadenas
13:45	The Art of Measuring (Almost) Nothing: The EXO Experiments	Giorgio Gratta
14:15	KamLAND, KamLAND-Zen and beyond	Sanshiro Enomoto
	<b>Dark Matter</b> ( <i>Marina Artuso, Chair</i> )	
14:45	Xenon Dark Matter Detector	Tom Shutt
15:15	Break	
15:30	Searching for Dark Matter WIMPs With Liquid Argon and Sodium Iodide Detectors	Frank Calaprice
	<b>Closing</b> ( <i>Carl Haber, Chair</i> )	
16:00	Directions in Dark Matter Directionality Detection	Azriel Goldschmidt
16:30	Future Perspective	Veljko Radeka
	<b>End of Symposium</b>	

# continued

- We have a fabulous but also very full agenda.
- Session chairs have been appointed and we ask all speakers to please adhere to their time limits (25 + 5 minutes for Q&A).
- Speakers please send/upload talks as per instructions you received. See admin if not.
- Presentations will also be video taped for later access.
- Review of basic safety issues.



# VISITOR SAFETY AT THE LAWRENCE BERKELEY NATIONAL LABORATORY

# General Information



- DOE Facility
- All visitors are expected to behave in a safe manner with respect for the safety culture
  - Stay off roofs
  - No recreational drugs or alcohol are allowed here
- Tell your host if you suffer an injury
- Call 911 from a lab phone in an emergency

# Traffic at the Lab



## Traffic Safety

- Speed limit is 25 mph unless posted lower
- Follow traffic, parking and pedestrian signs and markings
- Obey all security, construction workers and police officers
- Bicyclists must wear helmets and obey traffic rules and signs

## Pedestrian Safety

- Stay on the sidewalk
- Cross at crosswalks
- Do not attempt to touch any wild animals onsite



# Smoking Policy



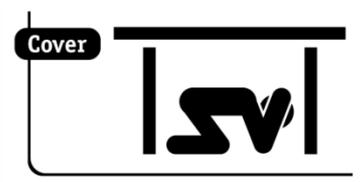
For those who choose to smoke, the lab has provided ashcans at a few outdoor places throughout the site. Smoking is only permitted at these places.



# Earthquake Response



**Drop** down on the floor.



**Cover** under a sturdy desk, table or other furniture.



**Hold** onto it and be prepared to move with the furniture.



**Evacuate** to assembly area (usually in parking lot) when shaking stops. Take personal items.

**Follow Directions** from the Building Emergency Team.

# In conclusion

- Welcome again to this Symposium!
- Introducing now Natalie Roe, Director of the Physics Division.