

# Welcome To Pittsburgh!

## Pittsburgh: The Coolest American City You Haven't Been To

🕒 01/06/2015 08:44 pm ET | **Updated** Mar 08, 2015



**Andrea Poe**

Journalist who covers travel, adoption and business issues around the globe



# PITTSBURGH Particle Physics, Astrophysics, and Cosmology Center



PITT PACC coordinates and enhances local activities in experimental, observational, and theoretical particle physics, astrophysics, and cosmology.

## Welcome To PITT PACC!

### PITT PACC Members

#### [Members](http://www.physicsandastronomy.pitt.edu/pittpacc/members)

<http://www.physicsandastronomy.pitt.edu/pittpacc/members>

#### [Associate Members](http://www.physicsandastronomy.pitt.edu/pittpacc/assocmembers)

<http://www.physicsandastronomy.pitt.edu/pittpacc/assocmembers>

#### [Previous Members](http://www.physicsandastronomy.pitt.edu/pittpacc/previous-members)

<http://www.physicsandastronomy.pitt.edu/pittpacc/previous-members>

### PITT PACC Meetings

#### [Calendar](http://www.physicsandastronomy.pitt.edu)

<http://www.physicsandastronomy.pitt.edu>

### News and Research

#### [Mission](http://www.physicsandastronomy.pitt.edu/pittpacc/mission) ([pittpacc/mission](http://www.physicsandastronomy.pitt.edu/pittpacc/mission))

#### [Research](http://www.physicsandastronomy.pitt.edu/pittpacc/research) ([pittpacc/research](http://www.physicsandastronomy.pitt.edu/pittpacc/research))

#### [Publications](http://www.physicsandastronomy.pitt.edu/pittpacc/publications) ([pittpacc/publications](http://www.physicsandastronomy.pitt.edu/pittpacc/publications))

#### [News and Events](http://www.physicsandastronomy.pitt.edu/pacc-news-and-events) ([pacc-news-and-events](http://www.physicsandastronomy.pitt.edu/pacc-news-and-events))

#### [Talk Repository](http://www.physicsandastronomy.pitt.edu/pittpacc/talk-repository) ([pittpacc/talk-repository](http://www.physicsandastronomy.pitt.edu/pittpacc/talk-repository))

### Local information

#### [Contact](http://www.physicsandastronomy.pitt.edu)

<http://www.physicsandastronomy.pitt.edu>

- **Members:** ~23 Pitt faculty  
+ 2 PITT PACC Fellows  
+ Postdocs, students, visitors

- **Associate Members:**

CMU; PSU; OSU; MSU;  
SUNY-Buffalo, CWRU

You can also join!

(free of charge; and free  
Pheno Symp. & workshops)

- **In both theory and Experiments/observation:**  
**Expt:** ATLAS;  
T2K, NOva, MicroBooNE, MINOS,  
MINERvA, DUNE; Belle II ...  
LSST, DESI, DEEP2,3 ...

**Theory:** QCD, EWSB, Higgs,  
 $\nu$ 's, DM, BSM, ...  
Cosmo: CMB, DE ...

# PITT PACC Missions

- Enhance research activities for particle physics, astrophysics, and cosmology.
- Strengthen interactions and collaborations among theorists and experimentalists.
- Promote local research to the general community.

# PITT PACC Activities

- Organizing joint seminars/colloquia  
broad interests; joined with CMU
- Organizing workshops:  
in rapid-response, on hot topics
- And other conferences:  
Pheno Symposia; CTEQ Summer schools;  
Experimental collaboration meetings ...
- Host visitors:  
Faculty sabbatical; international postdocs & students
- Host PITT PACC Public Lectures



# PITT PACC Workshops

## PAST WORKSHOPS:

### **US ATLAS Summer Analysis Workshop**

Organizers: Joe Boudreau, Tae Min Hong, Jim Mueller  
July 30 - August 2, 2018

### New Advances in NIR type Ia supernova science

Organizers: Lluís Galbany, Michael Wood-Vasey  
April 11-13, 2018  
University Club, Conf. Room B & Gold Room

### Probing the Nature of Dark Matter with LSST

Organizers: Andrew Zentner, Yao-Yuan Mao, Alex Drlica-Wagner (Fermilab)  
March 5-7, 2018  
University Club, Conf. Room A

### Light Dark World Forum 2017, October 19-21, 2017

Organizers: Brian Batell, Cindy Cercone, Ayres Freitas, Ahmed Ismail, Hye-Sung Lee, Tongyan Lin, David McKeen, Maxim Pospelov

### Digging Deeper at LHC Run II, February 23-25, 2017

Organizers: Tae Min Hong, Brian Batell, Ahmed Ismail, David McKeen

## UPCOMING WORKSHOPS:

### **The NuTheories Workshop: Beyond the (3 x 3) Paradigm at Current and Near-Future Facilities**

Organizers: Josh Berger, Brian Batell, Cindy Cercone, Dorival Gonçalves, Tao Han, Ahmed Ismail, Donna Naples, Richard Ruiz, Cedric Weiland  
November 4-10, 2018

***Thank you all !***

#### Speakers

- Brian Batell (University of Pittsburgh)
- Joshua Berger (University of Pittsburgh)
- Marco Drewes (Université Catholique de Louvain)
- Ivan Esteban (Universitat de Barcelona)
- Pavel Fileviez Perez (Case Western Reserve)
- Karsten Heeger (Yale)
- Julian Heeck (University of California, Irvine)
- Doojin Kim (Arizona)
- Danny Marfatia (Hawaii)
- Andy Mastbaum (Chicago)
- Dave McKeen (TRIUMF)
- Miha Nemevšek (Jožef Stefan Institute)
- Vittorio Paolone (University of Pittsburgh)
- Diana Parno (Carnegie Mellon University)
- Yuber Perez-Gonzalez (FNAL)
- Maxim Pospelov (University of Victoria & Perimeter Institute)
- Mark Ross-Lonergan (Columbia University)
- Richard Ruiz (Université Catholique de Louvain)
- Bibhushan Shakya (University of California, Santa Cruz)
- Sarah Shandera (Penn State University)
- Alex Sousa (Cincinnati)
- Michael Trott (Niels Bohr Institute)
- Yun-Tse Tsai (SLAC)
- Jessica Turner (FNAL)
- Cédric Weiland (University of Pittsburgh)
- Yongchao Zhang (Washington University)

# Great Years for *v-Physics*!



T. Kajita & A. McDonald



"for the discovery of neutrino oscillations, which shows that neutrinos have mass"

## Fundamental Physics Break Through Prize



Daya Bay, K2K/T2K, KamLand, SNO, SuperK  
"For the fundamental discovery and exploration of neutrino oscillations, revealing a new frontier beyond, and possibly far beyond, the standard model of particle physics."

PITT PACC is very proud of our awardees:

Donna Naples, Steve Dytman, Vittorio Paolone, Istvan Danko

# Great potential for *v-Physics*!

# Acknowledging the “Neutrino Theory Network”

The Neutrino Theory Network (NTN) is an effort to strengthen the US neutrino community and its impact on the US neutrino experimental program. The Department of Energy provided funds for the current year to support the first round of NTN activities. Future funding is under consideration and will be influenced by the success of this effort.

- Funding for a student or postdoc to spend one to a few months at a national laboratory to collaborate on a defined activity;
- Funding for a professor or lab scientist to spend up to a month visiting a national laboratory to collaborate on a defined activity;
- Partial funding for meetings and workshops, preferentially focused on topics of interest to the community, as discussed in depth. *Co-PI's: Cedric, Richard, TH*

- Physics of neutrino interactions: theory of neutrino-nucleon and neutrino-neutrino interactions, implementation in generators;
- Physics of neutrino detection: theoretical work to better understand neutrino signals, backgrounds register in detectors, guide new searches, including for new detection techniques;
- Physics of neutrino mixing and neutrino properties: theoretical work on neutrino mass, neutrino propagation, including new physics frameworks, how to extract new information from measured data, and the integration with other measurements.

## Scientific Steering Committee

John Beacom (Ohio State University)  
Marcela Carena, chair (Fermilab/U. Chicago)  
Joseph Carlson (Los Alamos)  
Bonnie Fleming (Yale U./Fermilab)  
Alex Friedland (SLAC)  
Graciela Gelmini (UCLA)  
Yuval Grossman (Cornell University)  
Patrick Huber (Virginia Tech)  
Andreas Kronfeld (Fermilab)  
Hitoshi Murayama (UC Berkeley, Berkeley Lab, Tokyo U. IPMU)

***Thank you!***

## Neutrino Theory Network Scientific Advisory Board

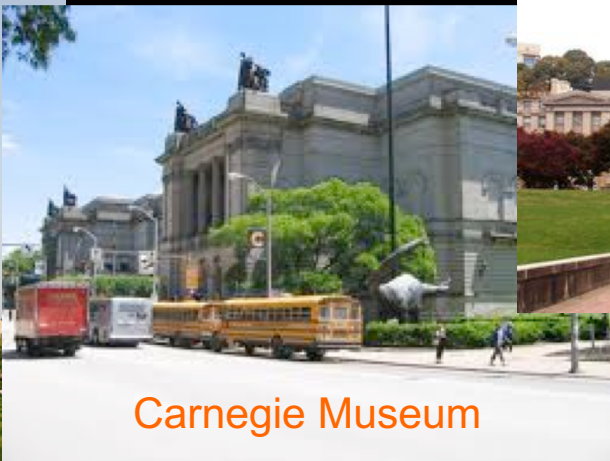
Andre de Gouvea, chair (Northwestern U.)  
Renata Funchal (USP)  
Belen Gavela (UAM/IFT)  
Roxanne Guenette (Harvard U.)  
Chang Kee Jung (Stony Brook U.)  
Alessandro Lovato (Argonne)  
Cecilia Lunardini (Arizona State U.)  
Pedro Machado (Fermilab)  
William Marciano (Brookhaven)  
Sanjay Reddy (INT, U. Washington)  
Kate Scholberg (Duke U.)

**Let's start the NTN kick-off activity !**



**Welcome All!**  
**Look forward to**  
**the stimulating talks & discussions.**  
***Hope you enjoy***  
***the workshop and your stay at Pitt !***

Cathedral of Learning



Carnegie Museum



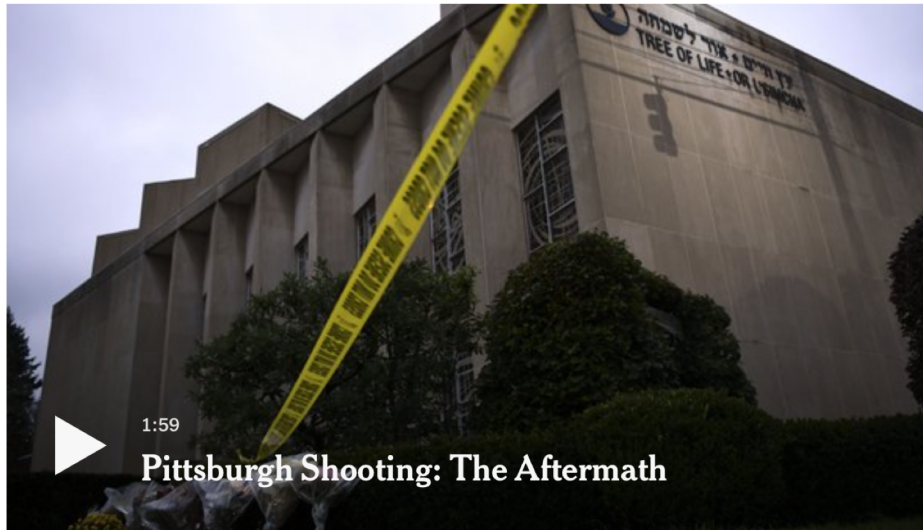
Soldiers & Sailors Museum



Phipps Conservatory

# ... the darkest days in Pittsburgh

## *11 Killed in Synagogue Massacre; Suspect Charged With 29 Counts*



A gunman opened fire in a Pittsburgh synagogue on Saturday, leaving 11 people dead and six others injured. Oct. 27, 2018 • Brendan Smialowski/Agence France-Presse — Getty Images



Please join us to condemn the senseless hatred in the strongest terms, offer the deepest sympathy to the victims and their families & friends.