

# CPAD 2022



# CPAD 2022

*Workshop and interest in instrumentation  
work are alive and well!*



### **310 total registrants:**

141 in person + 169 on zoom, 174 Early Career + 136 tenured/staff

### **194 total contributions:**

34 plenary + 3 Roundtables + 2 Townhalls + 28 WG1 + 15 WG2 + 28 WG3 + 21 WG4 + 12 WG5 + 8 WG6 + 21 WG7 + 14 Cross Cutting parallel





# Workshop feedback and comments

Watch for survey for anonymous feedback in the coming days. We would like to receive your feedback, suggestions and comments!



# Amazing work & great accomplishments!



**APS DPF  
instrumentation awards**



Please help with nominations



**GIRA awards**



# Working Groups & Conveners

## WG1: Solid State Detectors and ASICs

Conveners:

Gabriella Carini (carini@bnl.gov)

Ulich Heintz (Ulrich\_Heintz@brown.edu)

Xuan Li (xuanli@lanl.gov)



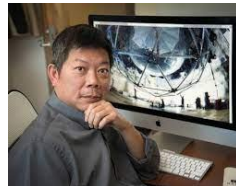
## WG2: Calorimetry

Conveners:

Friederike Bock (bockf@ornl.gov)

Adi Bornheim (bornheim@caltech.edu)

Minfang Yeh (yeh@bnl.gov)



## WG3: Noble Element Detectors

Conveners:

Elena Gramellini (elenag@fnal.gov)

Scott Hertel (shertel@umass.edu)

Chris Stanford (cstanford@g.harvard.edu)



## WG4: Quantum and Superconducting Detectors

Conveners:

Julian Martinez-Rincon (jmartinez1@bnl.gov)

Cristian Pena (cmorgoth@fnal.gov)

Mike Jewell (Michael.Jewell@yale.edu)





# Working Groups & Conveners

## WG5: MPGDs

Conveners:

Kevin Black (kblack@hep.wisc.edu)

Prakhar Garg (prakhar.garg@stonybrook.edu)

Matt Posik (posik@temple.edu)



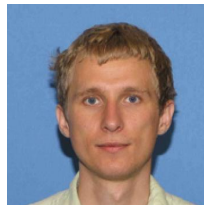
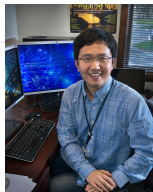
## WG6: TDAQ and AI/ML

Conveners:

Sasha Paramonov (alexander.paramonov@cern.ch)

Xin Qian (xqian@bnl.gov)

Mike Williams (mwill@mit.edu)



## WG7: Photon Detectors (incl. CCDs)

Conveners:

Flavio Cavanna (cavanna@fnal.gov)

Yordanka Ilieva (jordanka@physics.sc.edu)

Nepomuk Otte (otte@gatech.edu)



## WG8: Cross Cutting Topics

Petra Merkel



# CPAD Executive Committee

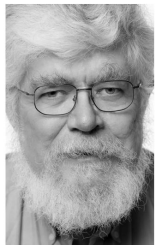
## Co-Chairs



**KARSTEN HEEGER**  
YALE UNIVERSITY  
CO-CHAIR



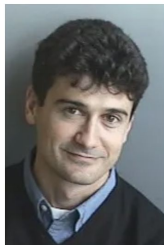
**PETRA MERKEL**  
FERMILAB  
CO-CHAIR



**RICK VAN BERG**  
UNIVERSITY OF  
PENNSYLVANIA  
NEUTRINOS/ENERGY,  
ELECTRONICS



**ULRICH HEINTZ**  
BROWN  
UNIVERSITY  
ENERGY, ASICS



**MAURICE GARCIA-SCIVERES**  
LAWRENCE BERKELEY  
NATIONAL  
LABORATORY  
ENERGY, SILICON



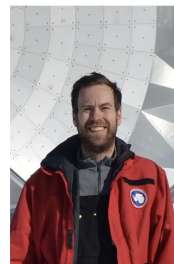
**KIM PALLADINO**  
OXFORD  
UNIVERSITY  
DM, LXE



**MARINA ARTUSO**  
SYRACUSE  
UNIVERSITY  
RARE/PRECISION,  
SILICON



**JINLONG ZHANG**  
ARGONNE  
NATIONAL  
LABORATORY  
ENERGY, TDAQ



**BRAD BENSON**  
FERMI NATIONAL  
ACCELERATOR  
LABORATORY  
CMB, PACKAGING,  
ELECTRONICS



**LINDLEY WINSLOW**  
MASSACHUSETTS  
INSTITUTE OF  
TECHNOLOGY  
AXION  
DM/0V2BETA



**ROXANNE GUENETTE**  
UNIVERSITY OF  
MANCHESTER



**DAVID ASNER**  
BROOKHAVEN  
NATIONAL



**STEVE WORM**  
DESY ZEUTHEN  
COLLIDER/ILC/INSTR



**KARL VAN BIBBER**  
UNIVERSITY OF  
CALIFORNIA-  
BERKELEY  
QIS, AXIONS

Establishing a proper 2-year rotation



# CPAD Executive Committee

- **We thank outgoing CPAD members:** Rick van Berg, Ulrich Heintz, Maurice Garcia-Sciveres, Brad Benson, Lindley Winslow, Roxanne Guenette, and Karl van Bibber.
- **Thank you, Petra!**
- **Seeking nominations!**
  - Vice chair, CPAD members
- Seek candidates based both at universities and laboratories, and differing seniority.
- Nominations of members belonging to groups traditionally underrepresented groups are especially encouraged,
- Particularly interested in receiving nominations of experts on the detection of **neutrinos, axions, the cosmic microwave background, and experts in quantum information science**
- **Watch for an email from APS DPF with nomination form.**

# Call for Proposals for CPAD 2023

- **Excited to host the next CPAD workshop?** Proposals due by Jan 31, 2022
- Continue regular workshop schedule in fall (Oct/Nov)
- What should be included in the proposal?
  - Description of venue, number and size of rooms,
  - wifi/zoom capabilities,
  - catering,
  - prior event hosting experience;
  - proximity to hotels and airports,
  - typical room rate in nearby hotels?
  - Potential support from hosting institute/department.

<https://cpad-dpf.org>

CPAD, the Coordinating Panel for Advanced Detectors, seeks to promote, coordinate and assist in the research and development of instrumentation and detectors for high energy physics experiments.

FIND OUT MORE



## **A resource for the community Comments and suggestions welcome!**

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FIND OUT MORE

# EDIT School 2023

## Excellence in Detector and Instrumentation Technologies

Hosted by Brookhaven National Laboratory  
October 11–27, 2023



**EDIT** (Excellence in Detector and Instrumentation Technologies) is a school series that is devoted to young researchers, in their graduate studies or in their first year as post docs, seeking to acquire a deeper knowledge on the major aspects of detectors and instrumentation technologies for particle physics. The school comprises lectures and four courses with hands-on experiments, including beam tests, on silicon sensors, silicon systems, calorimetry and gas detectors.

### Local Organizers

- Gabriella Carini (BNL)
- Michael Begel (BNL)
- Hucheng Chen (BNL)
- Sara Capp (BNL)

### Sponsors and/or Co-sponsors

- [International Committee for Future Accelerators](#) (ICFA)
- [Department of Energy](#) (DOE)

[Past Schools](#)

<https://www.bnl.gov/icfa-editschool/>

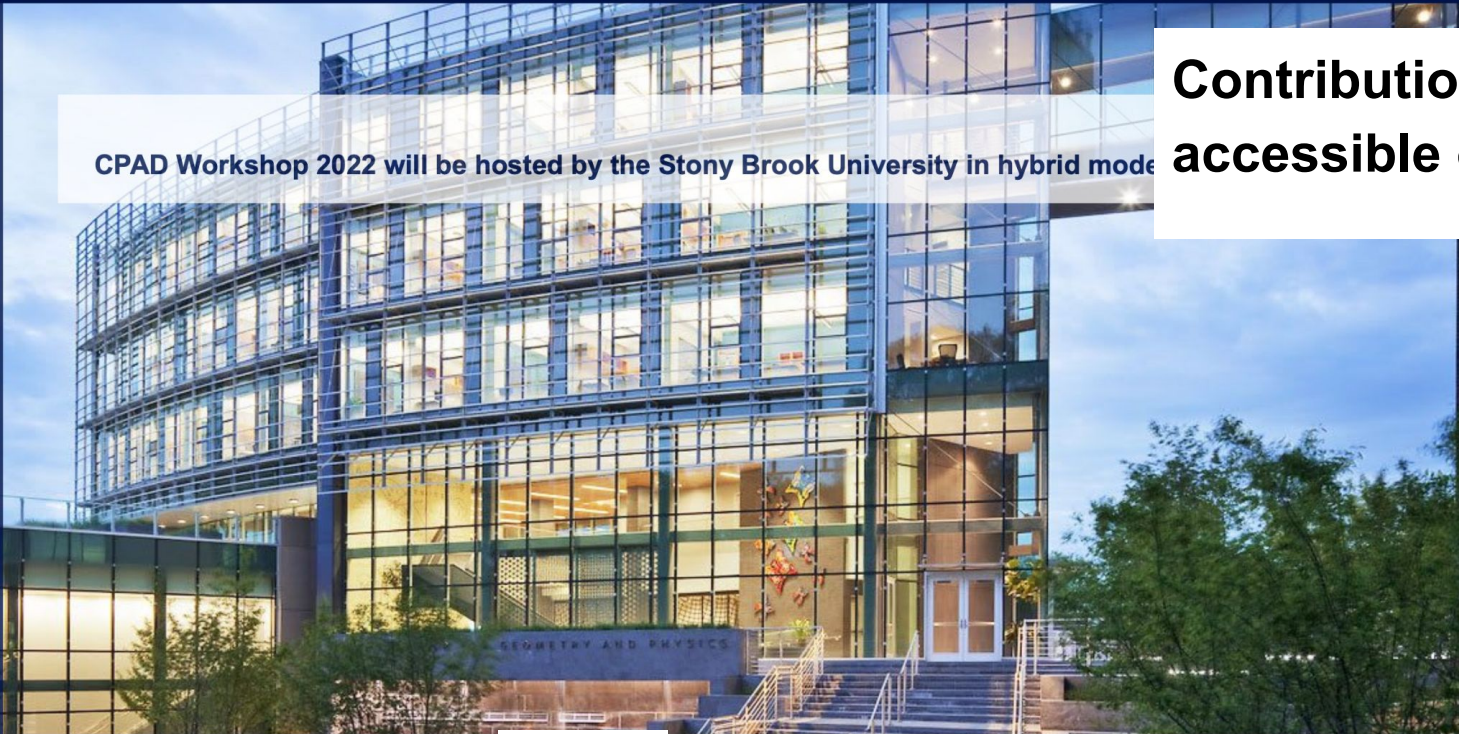


# CPAD Workshop 2022

Stony Brook University, November 29 - December 02, 2022

CPAD Workshop 2022 will be hosted by the Stony Brook University in hybrid mode

**Contributions will remain  
accessible on Indico**



Stony Brook  
University



Center for Frontiers  
in Nuclear Science



Fermilab

Yale



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## Thank you!

DOE HEP

DOE NP

NSF

Stony Brook

Center for Frontiers in Nuclear  
Science

Fermilab Directorate

Yale University



Stony Brook  
University



Center for Frontiers  
in Nuclear Science



Yale

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CPAD Workshop 2022 will be hosted by the Stony Brook University in hybrid mode.

# Thank you!

**Klaus Dehmelt**

**Prakhar Garg**

Jaydeep Datta

Charles-Joseph Naïm

Michael Giles

Dading Chen

Pradhyumna Parthasarathy

Zuhal Seyma Demiroglu

Evgeny Aleksandrovich Shulga

Wenliang (Bill) Li

James Shirk

Ross Corliss

Luke Legnosky

Julian Driebeek

Roli Esha



Stony Brook  
University



Center for Frontiers  
in Nuclear Science



Yale