

# Welcome to Berkeley Lab!



Tony Spadafora  
Division Deputy, Physics Division

Grad Student Open House 2024



# Safety at LBNL

## US DOE Facility

- Obey all posted signs

## Pedestrian Safety

- Use sidewalk and crosswalks
- Watch your step!
- Do not interact with wild animals



## Traffic Safety

- Speed limit is 15 mph on most of site due to construction
- Follow traffic, parking and pedestrian signs and markings

## Smoking

- In designated areas only





# Earthquake Response



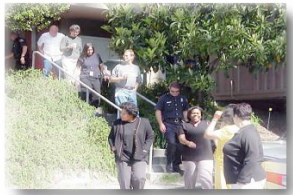
**Drop** down on the floor



**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). Take personal items.

**Follow Directions** from the Building Emergency Team



# Reporting Emergencies

–Dial **911** for life threatening emergencies

–Dial **6999** for non-life threatening events





# Berkeley Lab Today

- Today Berkeley Lab has 21 scientific divisions organized in 6 areas:

Physical Sciences, Computing Sciences, BioSciences, Energy Sciences, Energy Technologies, Earth and Environmental Sciences

- 3,663 Employees
  - 1,781 Scientists and Engineers
  - 503 postdocs
- 1,736 visiting scientists
- Connection to UC Berkeley
  - 242 Joint faculty, 297 grad students, 119 u/grads
- Budget ~ \$1.5B (in FY23)
- 202 acres, 97 buildings, 21 trailers





**Laboratory Director**  
**M.S. Witherell**

**C.J. Burns**  
Deputy Director  
for Research

**M.T. Brandt**  
Deputy Director  
for Operations

<b>M.K. DICK</b> , Chief of Staff	<b>L. IDOS</b> , Chief Diversity, Equity, and Inclusion Officer	<b>A. STONE</b> , Chief Information Officer
<b>A. CHAKRAVARTY</b> , Chief Culture Officer	<b>J. KINDRA</b> , Chief Technology Transfer Officer	<b>T. TRIPLETT</b> , Institutional Compliance and Ethics Manager
<b>J.D. ELLIOTT</b> , Chief Sustainability Officer	<b>T.M. LEONE</b> , Laboratory Counsel	<b>H. VON DER LIPPE</b> , Chief Engineer
<b>A. FLORES</b> , Department Head, Internal Audit	<b>T. PRAY</b> , Chief Strategic Partnerships Officer	<b>L. ZSCHERPEL</b> , Chief Financial Officer
<b>J. GERMAN</b> , Chief Communications Officer		

**SCIENCE**

<b>ALS-U</b> D. ROBIN, Advanced Light Source Upgrade Project Director				
<b>BIOSCIENCES</b> P.D. ADAMS, Associate Laboratory Director	<b>BIOLOGICAL SYSTEMS &amp; ENGINEERING</b> B.A. Simmons Division Director	<b>DOE JOINT GENOME INSTITUTE</b> N.J. Mouncey Facility Director	<b>ENVIRO. GENOMICS &amp; SYSTEMS BIOLOGY</b> S.G. Tringe Division Director	<b>MOLECULAR BIOPHYSICS &amp; INTEGRATED BIOIMAGING</b> J. Yano Division Director
<b>COMPUTING SCIENCES</b> J.T. CARTER, Associate Laboratory Director	<b>APPLIED MATHEMATICS &amp; COMPUTATIONAL RESEARCH</b> S. Wild Division Director	<b>NAT. ENERGY RESEARCH SCIENTIFIC COMPUTING CENTER (NERSC)</b> S.S. Dosanjh Division Director	<b>SCIENTIFIC NETWORKING (ESNET)</b> I.S. Monga Division Director	<b>SCIENTIFIC DATA</b> L. Ramakrishnan Interim Division Director
<b>EARTH &amp; ENVIRONMENTAL SCIENCES</b> W.D. COLLINS, Associate Laboratory Director	<b>CLIMATE &amp; ECOSYSTEM SCIENCES</b> A. Rogers Division Director	<b>ENERGY GEOSCIENCES</b> J. Birkholzer Division Director		
<b>ENERGY SCIENCES</b> J.B. NEATON, Associate Laboratory Director	<b>ADVANCED LIGHT SOURCE</b> D. Argyriou Division Director	<b>CHEMICAL SCIENCES</b> P.L. Arnold Division Director	<b>MATERIALS SCIENCES</b> P. Fischer Interim Division Director	<b>MOLECULAR FOUNDRY</b> K.A. Persson Division Director
<b>ENERGY TECHNOLOGIES</b> M.A. PIETTE, Associate Laboratory Director	<b>BUILDING TECHNOLOGY &amp; URBAN SYSTEMS</b> J. Granderson Interim Division Director	<b>ENERGY ANALYSIS &amp; ENVIRONMENTAL IMPACTS</b> T. Kirchstetter Division Director	<b>ENERGY STORAGE &amp; DISTRIBUTED RESOURCES</b> R. Kostecki Division Director	
<b>PHYSICAL SCIENCES</b> N.A. ROE, Associate Laboratory Director	<b>ACCELERATOR TECH. &amp; APPLIED PHYSICS</b> C.G.R. Geddes Division Director	<b>ENGINEERING</b> H. von der Lippe Division Director	<b>NUCLEAR SCIENCE</b> R. Kruecken Division Director	<b>PHYSICS</b> N. Palanque-Delabrouille Division Director

**OPERATIONS**

<b>ENVIRONMENT, HEALTH, &amp; SAFETY</b> M. Nappi Division Director
<b>FACILITIES</b> B. Henderson Division Director
<b>HUMAN RESOURCES</b> M.F. Lee Chief Human Resources Officer
<b>INFORMATION TECHNOLOGY</b> A. Stone Division Director
<b>OFFICE OF THE CHIEF FINANCIAL OFFICER</b> L. Zscherpel Chief Financial Officer
<b>PROJECTS AND INFRASTRUCTURE MODERNIZATION</b> T. Hancock Division Director
<b>PROJECT MANAGEMENT OFFICE</b> E. Nassar Project Management Officer
<b>SECURITY AND EMERGENCY SERVICES</b> D. Von Damm Division Director

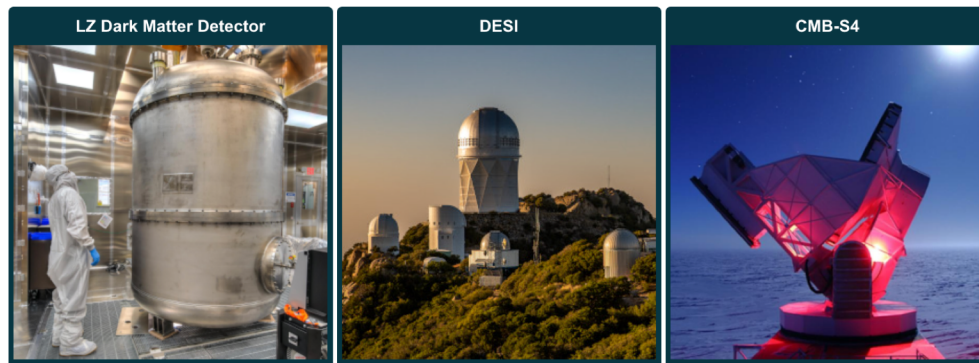


# Physics Division Particle Physics & Cosmology

## Research Areas



## Major Experiments



## Scientific Staff

51 Career Scientific Staff and Joint Faculty  
74 Postdocs (including visiting postdocs)  
12 Grad students, > 100 affiliated grad/ugrads  
10 Technical staff

Learn more about us at [physics.lbl.gov](http://physics.lbl.gov)

# Diversity and Inclusion

[physics.lbl.gov/idea/](https://physics.lbl.gov/idea/)



**Building a culture of inclusion and diversity in the Physics Division.**

## Physics Division IDEA Committee

The goal of the physics division Inclusion, Diversity, Equity, Accountability (IDEA) committee is to raise awareness of IDEA issues by sharing people's experiences on IDEA topics, promote IDEA activities, collect and distribute IDEA resources, and beyond.

We welcome input from all of you on topics such as:

- What IDEA activities can we host at the physics division?
- What IDEA training would you like to learn more about?
- What IDEA resources will be helpful at your workplace? etc.

You are welcome to come to our monthly meetings to share your thoughts! Meetings and activities are open to everybody.

Contact: [PH-IDEA-Committee@lbl.gov](mailto:PH-IDEA-Committee@lbl.gov)



# Plan for today

## Presentations from Research Groups

9:10 Welcome to Berkeley Lab - Tony Spadafora

9:20 Collider Physics with ATLAS at the LHC - Elisabetta Pianori

9:30 Cosmology - Simone Ferraro

9:40 Dark Matter - Aaron Manalaysay

9:50 Neutrino physics - Gabriel Orebi Gann

10:05 Nuclear Science at Berkeley Lab - Reiner Kruecken

10:20 EIC Heavy Ion Physics - Nikki Apadula

(Slides are available <https://indico.physics.lbl.gov/event/2799/> )

## 10:40 – 11:55 Lab tours or Quantum Computing/Machine Learning discussion

*Lab tours:*

- ATLAS Silicon detector, CCD R&D, CMB/DM/QIS labs
- Neutrino, Dark Matter, Semiconductor Detector labs

Or: Discussion Group on Quantum Computing and Machine Learning

*Please indicate your choice on the sign-up sheet*

12:00 Bus departs for campus



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science

# Physics Division



# Plan for today



**SIGN-UP SHEET** to choose Lab Tours or Informal discussion group

NAME \_\_\_\_\_

Choose (Circle) **One Option in each row**

**(details and sign-up below)**

	<i>Walk to labs</i>	<i>Stay in 50A-5132</i>
10:40 am - 11:15 am	ATLAS, CCD, CMB Labs (Bldg 50)	QC/ML Discussion
11:15 am - 11:55 am	Neutrino, Dark Matter, Semiconductor Detector Labs (Bldgs. 70 and 70A)	Open for discussions with individual Scientists