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# **Stanford Graduate Student Orientation 2025**

## **SLAC Session - Introduction**

**Ariel Schwartzman**

Natalia Toro, PPA Faculty Chair

Philip Bucksbaum, Photon Science Faculty Chair

Alberto Salleo, Chief Research Officer



# The Stanford Physics Community

A complex structure,  
but also means more  
opportunities

You can choose Faculty  
advisors from 4 departments

SLAC as a National Lab  
and an academic  
unit is unique to  
Stanford/SLAC

1<sup>st</sup> year rotations may help  
you explore these connections

Humanities & Sciences

SLAC

Physics  
Department

Applied  
Physics  
Department

Particle  
Physics &  
Astrophysics  
(PPA)

Photon  
Science

SLAC Director:  
John Sarrao



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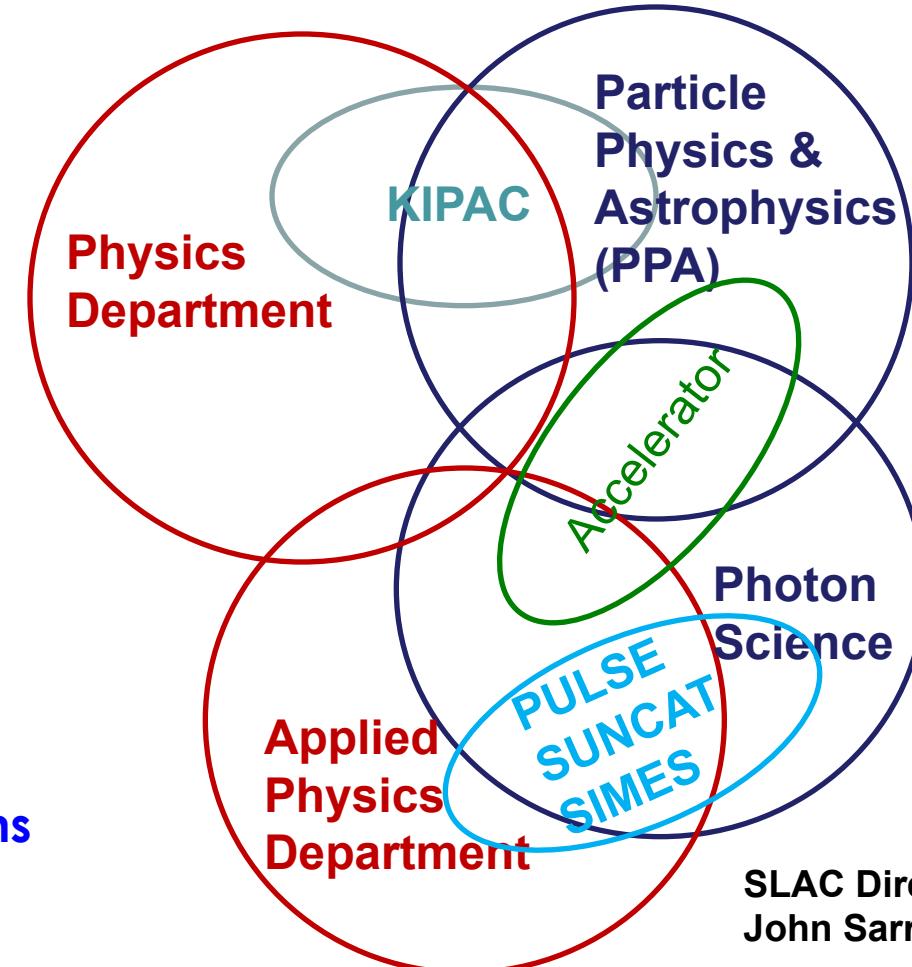
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SLAC



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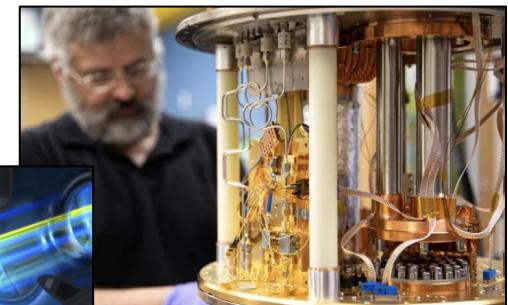
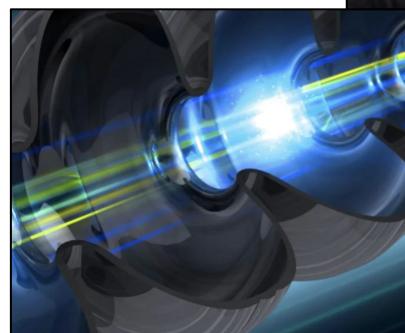
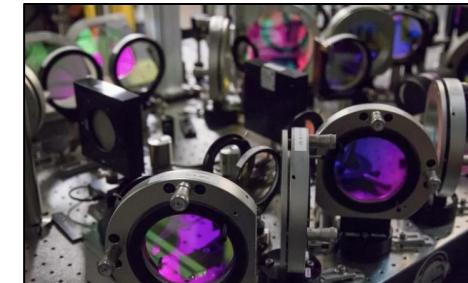


# Research at SLAC

Diverse research activities at SLAC are summarized at

<https://www6.slac.stanford.edu/research>

- Elementary particle physics
- Astrophysics and cosmology
- Accelerator Research
- X-ray and Ultrafast Science
- Environmental Science
- Materials, Chemistry & Energy Sciences
- Matter in Extreme Conditions
- Quantum Information Science
- Machine Learning
- Scientific Computing



# Resources at SLAC

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- **The vast resources at a National Lab is for you to take advantage of for your own education**
  - Accelerator facilities
  - Staff scientists with broad range of expertise
  - Computing and software expertise
  - Engineering expertise
  - Schools, Workshops, Colloquia, Seminars
- Marguerite shuttles  
SLAC Line operates 7:00am~8:20pm between campus and SLAC every 40 min on weekdays.  
Line S has peak hour services every 30 min between campus, Palo Alto CalTrain station and SLAC.



# SLAC Contacts and Information

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- **SLAC Particle Physics and Astrophysics Faculty:**

- Chair: Prof. Natalia Toro
- Graduate Student Program: Prof. Ariel Schwartzman
- Graduate Student Support: Adrienne Higashi
- PPA faculty list:  
<https://faculty.slac.stanford.edu/particle-physics-astrophysics-faculty>

- **SLAC Photon Science faculty:**

- Chair: Prof. Philip Bucksbaum
- PS faculty list:  
<https://faculty.slac.stanford.edu/photon-science-faculty>

# SLAC Orientation Program

## Time

9:30 – 9:40

9:40 – 10:00

10:00 – 10:20

10:20 – 10:40

10:40–11:00

<https://indico.slac.stanford.edu/event/10071/>

11:00 – Noon:

**Refreshments, poster session and informal discussions in main lobby**

**Lunch pickup in lobby**

**Poster sessions continue**

**Office hours:** ATLAS, HPS/LDMX, DUNE, LZ, LCLS, LSST, CMB, QIS

14:00 - 16:00 **Lab tours**

[Link to schedule](#)

## Program/Presentation

Introduction

Particle Physics and Astrophysics

Accelerator Physics

Theory at SLAC

Photon Science

## Speaker

A. Schwartzman

H. Tanaka

E. Nanni

A. Friedland

M. Kling

13:00-14:00	<b>LCLS</b> Experimental Hall tour (Diling Zhu, Sandra Mous). ~ 1.5 hours, meet at main lobby, Bldg 53	ATLAS ITK lab tour joint with CMB (B84, B33) (Su Dong, Caterina Vernieri, Prajita Bhattacharai)	CMB Lab Tour to the Millikelvin Facility (Shawn Henderson) (meet outside B53 lobby to walk to B33)	SLAC Millikelvin Facility (Kurinsky, Stifter) Tour joint with CMB, Axion Lab, SLab/Shannon Harvey, and ATLAS (meet outside B53 lobby to walk to B33)	DUNE Group (Convery, Tanaka) Bldg 84, B198	HPS and LDMX (B84, B200) Tim Nelson	LZ/XLZD office hours (Akerib, Shutt) in Kavli 223	LSST/Rubin group (Roodman) in Kavli 210	Axion Lab SLAC Millikelvin Facility (Bartram – tour joint with CMB, DMQIS, SLab/Shann on Harvey)
	<b>Accelerator Physics + Machine Learning Office Hours</b> (Auralee Edelen and ARD ML group, Bldg 52, Room B84 Group C (B259))	ATLAS group meeting (Julia Gonski, Caterina Vernieri), Kavli 222,	CMB Coffee and office hours (Zeesh Ahmed, Manu Schaan, Shawn Henderson)	DMQIS/CDMS office hours (Kurinsky, Stifter) in Kavli 311-313, 2-5pm	Theory Group welcome (Bldg 48, room 224)	DUNE Group Office Hours (Tanaka) Bldg 84, B228	HPS and LDMX (B84, B200) Tim Nelson	LZ/XLZD lab tour - IR2 (Akerib, Shutt), meet at Kavli 223/ (3pm-4pm)	LSST/Rubin group (Roodman) in Kavli 210

