
Stanford Graduate Student Orientation 2018

SLAC Session - Introduction

Su Dong

On behalf of Ariel Schwartzman

Aaron Roodman, PPA Faculty Chair

Piero Pianetta, Photon Science Faculty Chair

JoAnne Hewett, Chief Research Officer

The Stanford Physics Community

School of Humanities & Sciences

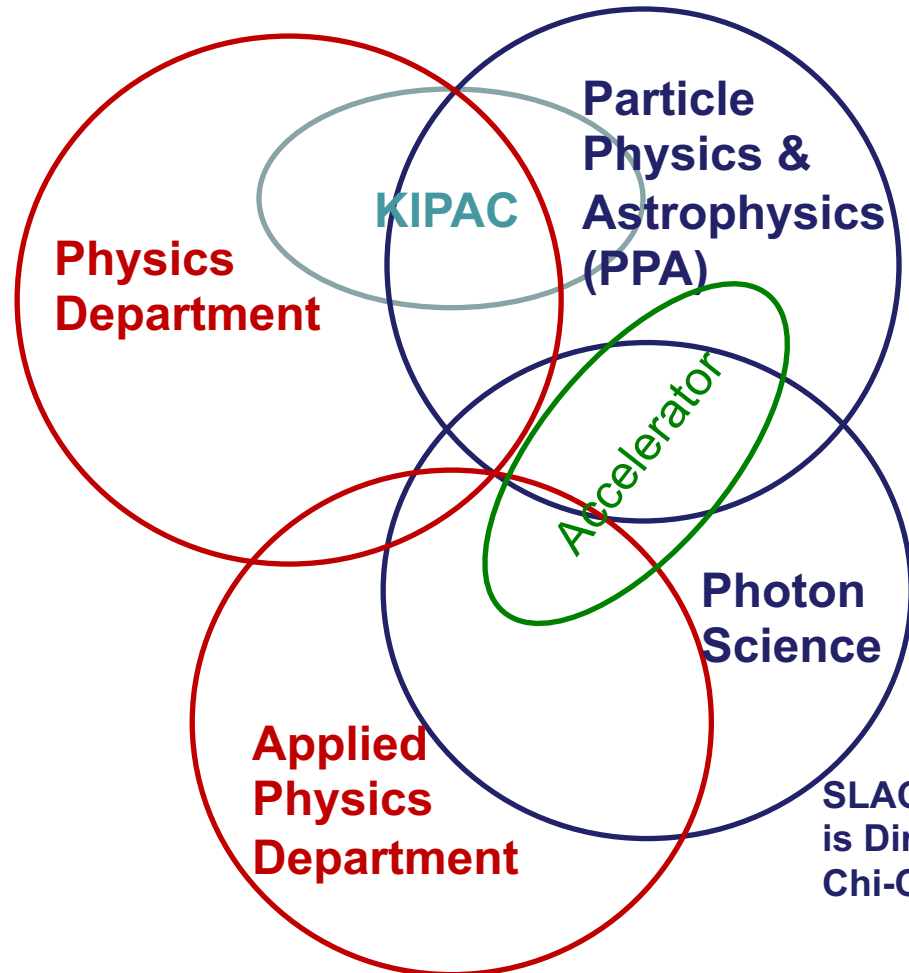
School of SLAC

A complex structure,
but also means
more opportunities.

You can choose faculty
advisors from
4 departments

SLAC as a national lab
and also an academic
school is unique to
Stanford/SLAC

1st year rotations may help
you steer through the maze...



Research at SLAC

Diverse research activities at SLAC are summarized at

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

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

Resources at SLAC

- The vast resources at 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 7:30am~8:30pm between campus and SLAC ~every 20min on week days.
Line S has peak hour services between campus, Palo Alto CalTrain station and SLAC.



SLAC Contacts and Information

- SLAC PPA faculty:
 - Chair: Prof. Aaron Roodman
 - Graduate Student Program: Prof. Ariel Schwartzman
 - Graduate Student Support: Adrienne Higashi
 - PPA faculty list: <https://faculty.slac.stanford.edu/particle-physics-astrophysics-faculty>
 - PPA student info: <http://www.slac.stanford.edu/gen/grad/>
- SLAC Photon Science faculty:
 - Chair: Prof. Piero Pianetta
 - PS faculty list: <https://faculty.slac.stanford.edu/photon-science-faculty>

SASS: SLAC Association for Student Seminars



Our Mission

- **SASS is a student-run organization** whose goal is to build a student community that supports learning, communication skill development, and exploration of research and careers
- **We host seminars delivered by SLAC students** (not limited to physics grad students)
- Practice your qual. talk, conference talk, thesis defense, etc.
Or just improve your public speaking abilities!
- Talks can be on *any* topic of your choice!

Science-related....

| | | |
|--------|--|------------------------------|
| Aug 22 | How Modern Particle Physics Came to Be | Sanha Cheong |
| Aug 8 | Exploring Neutrino Physics | Philip Weigel |
| Aug 1 | Hunting for Dark Matter with the LUX-ZEPLIN Experiment | Tomie Gonda and Ryan Linehan |
| Jul 25 | X-Ray Techniques Through History | Kathryn Ledbetter |
| Jul 18 | LSST at SLAC: Building the World's Largest Digital Camera | Adam Snyder |
| Apr 26 | Introduction to Neural Networks | Kareem Hegazy |
| Apr 19 | Physics of Roman Aqueducts | Kathryn Ledbetter |
| Apr 12 | New Long-Lived Particle Searches at the LHC | Rob Mina |
| Mar 15 | Intermittency in Solar Wind Plasma: Finding the Missing Dissipation | Kathryn Ledbetter |
| Mar 8 | On the Theory of Time-Dependent X-Ray Scattering | Matt Ware |
| Mar 1 | Invisible Fastballs: A Discussion of Ultra-High-Energy Astrophysical Neutrinos | Ryan Linehan |

Or not!

| | | |
|--------|---|----------------------------------|
| Mar 14 | An Exploration of Free Will | Shaun Alsum |
| Mar 7 | Cryptocurrency for Physicists | Sean McLaughlin and Dylan Reuter |
| Feb 28 | So you think you're a good person: a moment for self judgement. | Aude Glaenger |
| Feb 21 | A Trip to Monte Carlo | Kathryn Ledbetter |
| Feb 14 | What is LSST and when is it going to be finished? | Adam Snyder |
| Feb 7 | How to Fake It on the Gig | Chris Davis |
| Jan 31 | Meme Topology | Tomie Gonda |



Next up: autumn quarter organizational meeting

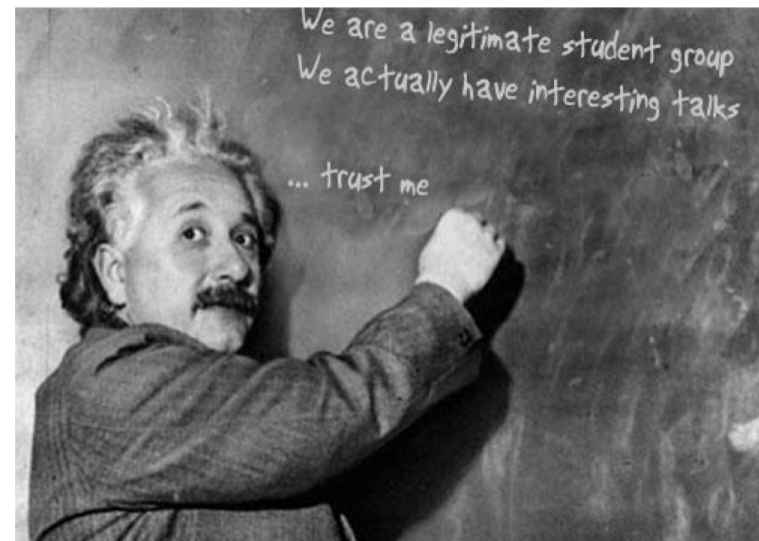
- Next Thursday, September 27th, 12:30 PM
- SLAC Kavli building, 3rd floor conference room
- Discuss meeting times, schedule talks throughout the quarter, enjoy free pizza

Questions? Contact the current czars:

- Sanha Cheong (ATLAS Group, sanha@slac.stanford.edu)
- Tomie Gonda (LZ Group, tggonda@slac.stanford.edu)

or visit our website: <https://www.slac.stanford.edu/slac/sass/>

Stay tuned for announcement email(s)!



SLAC Orientation Program

| Time | Program/Presentation | Speaker |
|--------------|---|------------------------------------|
| 9:00--9:15 | Introduction | Su Dong |
| 9:20--9:40 | Accelerator Physics | Agostino Marinelli |
| 9:45--10:05 | LCLS | Michael Minitti |
| 10:10--10:30 | SSRL | Simon Bare |
| 10:40--10:50 | Break | |
| 10:50--11:00 | Particle Physics Theory | Alex Friedland |
| 11:15--11:35 | Particle Physics Experiments | Hiro Tanaka |
| 11:40--20:00 | Particle-Astro Experiments | Tom Shutt |
| 12:05--12:25 | Cryo-Em | Wah Chiu |
| 12:30--14:00 | Panofsky lobby Lunch + Poster session Conversations between students and faculty/staff | |
| 14:00—17:00 | Open office/lab | |