

*The National Science Foundation and the Topical Group in Plasma Astrophysics (GPAP)  
of the American Physical Society - Division of Plasma Physics present*

the 3rd biennial

# NSF/GPAP SUMMER SCHOOL

*on plasma physics for astrophysicists*

## WELCOME!

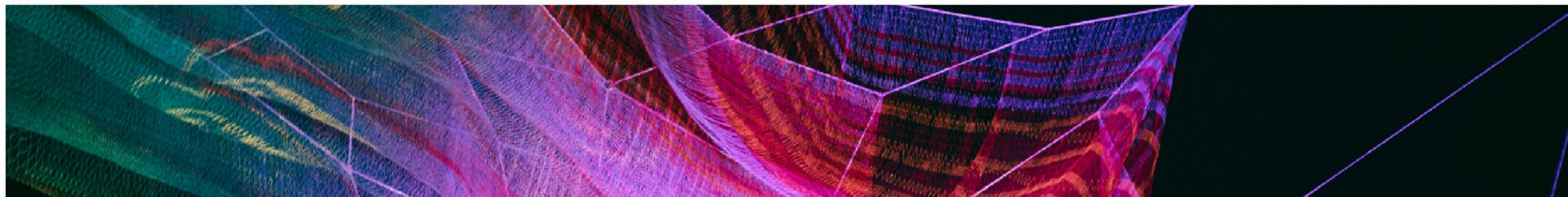




**Please join  
APS and GPAP!**

It should be free to do so  
as a student member.

<https://www.aps.org/membership/join.cfm>



## Topical Group in Plasma Astrophysics

The Topical Group advances plasma astrophysics—an interdisciplinary body of knowledge that seeks common ground between plasma physics and astrophysics, and involves the application of fundamental concepts of plasma physics to the solution of outstanding problems in astrophysics.

[Executive Committee](#)

[Newsletters](#)

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### **Featured News**

**NSF Director Explains Vision for Science Agency in APS News**

[READ MORE](#) →

### **Latest News**

#### **NSF Director Explains Vision for Science Agency in APS News**

16 days ago

NSF Director Explains Vision for Science Agency in APS News In the June edition of APS News, National Science Foundation ...

#### **APS STEM Workforce Report**

3 months ago

APS has released a new report that provides recommendations to strengthen the nation's STEM workforce, including building ...

### **Meetings & Events**

#### [APS March Meeting 2022](#)

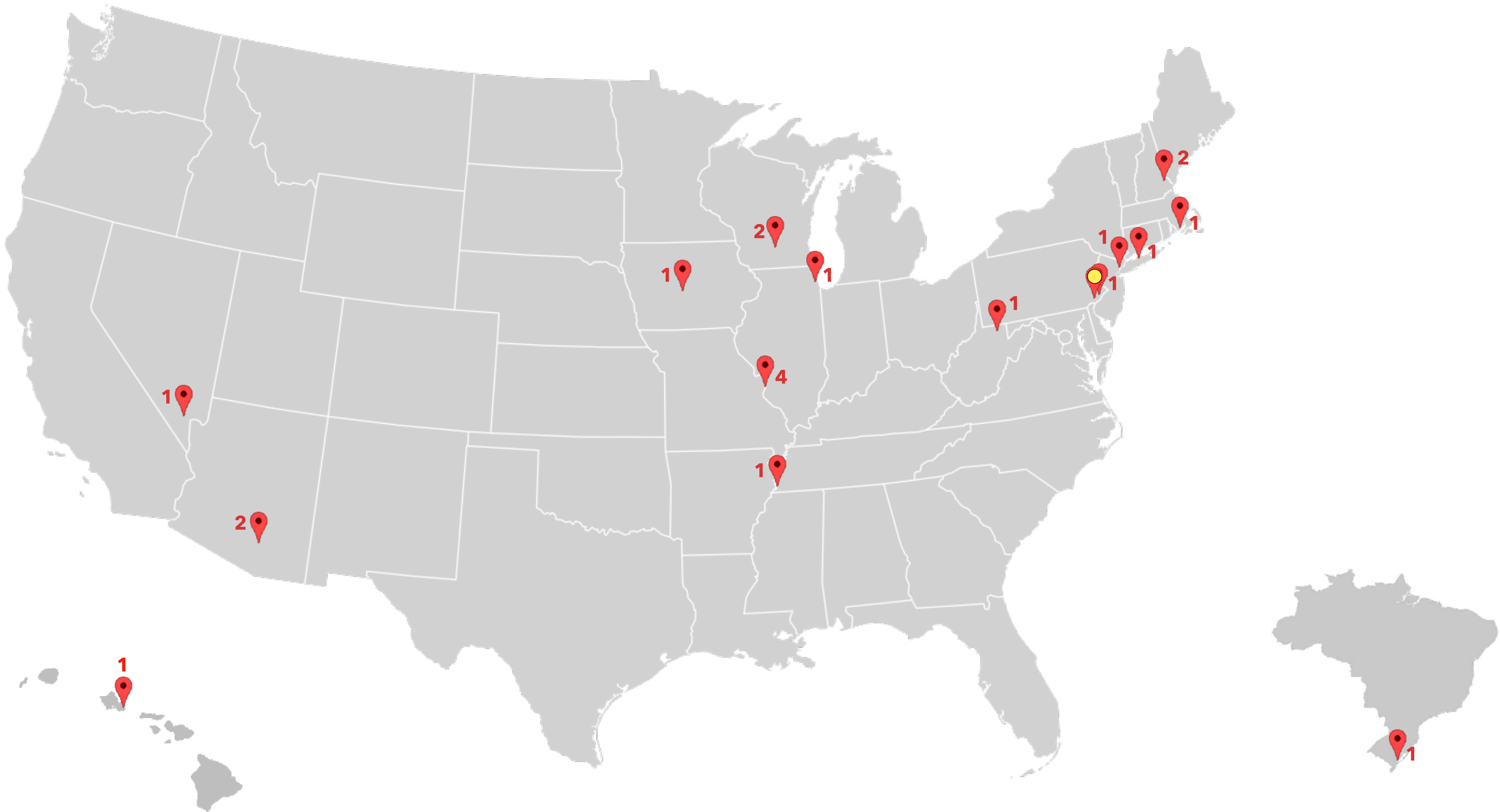
**2022** Mon Mar 14th - Fri 18th

Chicago, IL

#### [APS April Meeting 2022](#)

**2022** Sat Apr 9th - Tue 12th

New York, NY





Matthew Kunz  
Princeton University



Mike Brown  
Swarthmore College



David Hosking  
Princeton - PCTS



Muni Zhou  
Princeton & IAS



Jim Stone  
IAS



Benjamin Chandran  
Univ. New Hampshire



Damiano Caprioli  
University of Chicago



Louise Willingale  
University of Michigan



Libby Tolman  
Flatiron - CCA

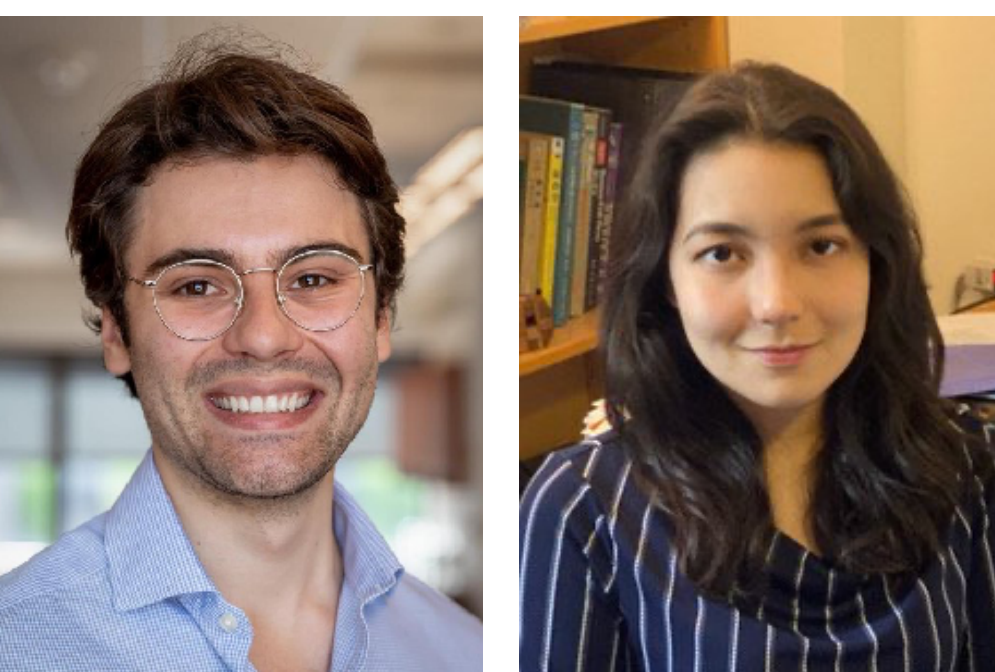


Sasha Philippov  
University of Maryland

EDT	MONDAY, 5/29	TUESDAY, 5/30	WEDNESDAY, 5/31	THURSDAY, 6/1	FRIDAY, 6/2
9:00am	Welcome				
9:15am	Overview of Astrophysical and Space Plasmas  (Kunz)	MHD and Linear Waves  (Zhou)	Nonlinear Evolution of MHD Instabilities  (Stone)	Numerical Methods: Fluids  (Stone)	Charged- Particle Motion  (Tolman)
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11:00am	Fundamentals of Fluid Dynamics (Hosking)	MHD Instabilities  (Kunz)	Turbulence, I.  (Chandran)	Turbulence, II.  (Chandran)	Introduction to Kinetic Theory  (Kunz)
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12:00pm	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
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1:00pm		NSF GRFP (Lukin)	discussion session on navigating grad school		
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+ Caprioli & Chandran

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+ Kunz, Brown, Hosking, Tolman & Philippov

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+ Kunz, Brown & Philippov



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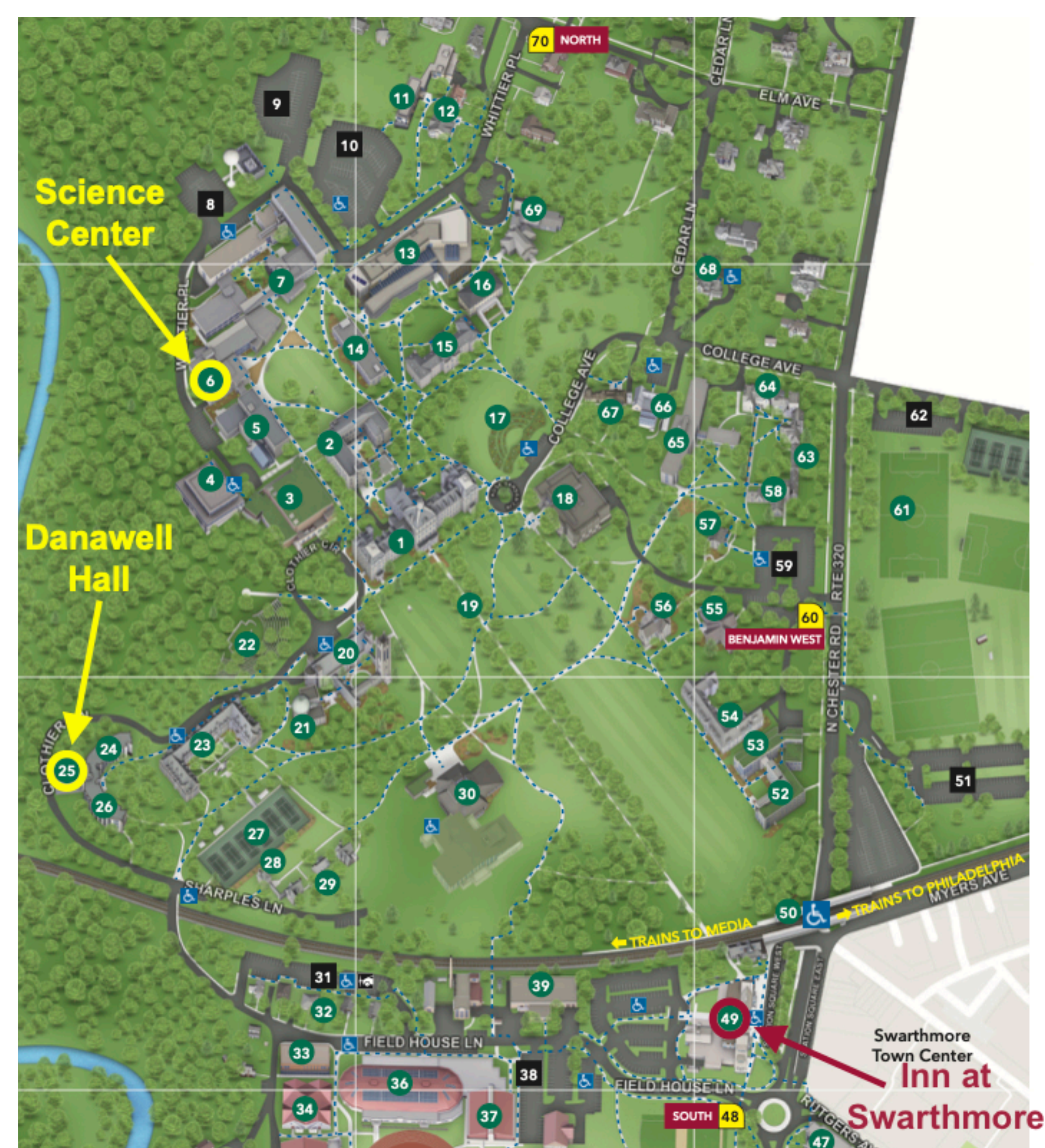


Please visit

<https://www.gpapschool.com/program-2023>

for the schedule, lecture notes, and problem sets





WiFi available via eduroam and Swarthmore's guest network

no smoking in or near buildings  
no COVID restrictions or requirements

all lunches will be provided  
today's dinner is provided (Rocco's pizza)  
banquet is on Wednesday

open tab at Science Center Cafe  
for coffee, tea, snacks, breakfasts  
(please be reasonable!)

*thank you to NSF, Swarthmore College,  
and especially Doc Brown & Carolyn Warfel!*