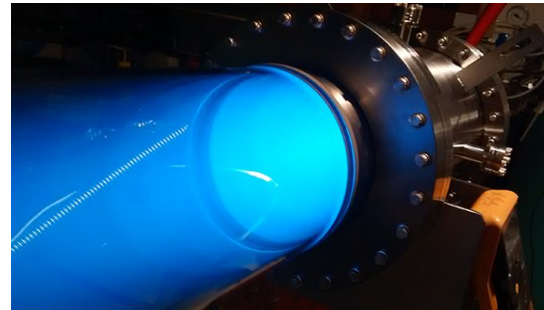
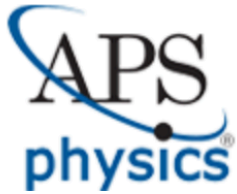


# Welcome!

American Physical Society — Division of Plasma Physics  
Topical Group in Plasma Astrophysics  
summer school on plasma physics for astrophysicists

lecturers: Mike Brown (Swarthmore)  
Kristopher Klein (Arizona)  
Matthew Kunz (Princeton)  
Carolyn Kuranz (Michigan)  
Jason TenBarge (Princeton)





# Topical Group in Plasma Astrophysics

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## 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.

▶ [Rationale & Background](#)

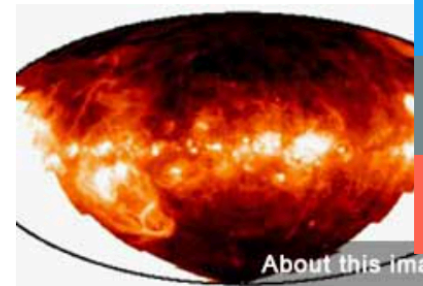
### News & Announcements

#### SPD Solar Physics Division

- ▶ [website](#)
- ▶ [session listing](#)

#### LAD Laboratory Astrophysics Division

- ▶ [session listing](#)



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#### Quick Links

- [Executive Committee](#)

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## Congratulations to Our Newest APS Fellows

program and lecture notes available at  
<https://www.gpapschool.com/program>

today: intro to astrophysical plasmas  
fundamentals of fluid dynamics  
fundamentals of plasmas  
basic magnetohydrodynamics  
introduction to turbulence  
linear theory of MHD waves  
introduction to magnetic reconnection

coffee, tea, snacks, and lunch will be provided

program and lecture notes available at  
<https://www.gpapschool.com/program>

tomorrow: intro to MHD turbulence

linear theory of MHD instabilities

problem session

single-particle motion

introduction to kinetic theory

linear theory of kinetic instabilities

problem session / SSX and LiPD tour

coffee, tea, snacks, and lunch will be provided

banquet dinner!

program and lecture notes available at  
<https://www.gpapschool.com/program>

Thursday: intro to radiation hydrodynamics  
research talks  
particle-in-cell simulation demo  
problem session / SSX and LiPD tour

coffee, tea, snacks, and lunch will be provided  
pizza party!

# GPAP Summer School on Plasma Astrophysics, June 18-20, 2019

## General Information

**Getting to Swarthmore:** You can take Septa (local rail) from the airport to 30th St station. Check the schedule online, but trains leave the various terminals and arrive about 20 minutes later at 30th St on the half-hour (6, 6:30, 7, 7:30 PM etc). To get to Swarthmore, take the R3 (Media/Elwyn line). Once in Swarthmore, it's easy to get back to Philadelphia for dinner or sightseeing. Last train back is about midnight.

<http://www.septa.org/schedules/rail/index.html>

The other option is a taxi or Uber (\$25-\$30). Tell the driver it's towards Media (95 south, 476 north to the Media/Swarthmore exit). The driver can take you right to the Parrish Hall (Rose Garden Circle), or directly to the Science Center. You can show the driver where to go on a map.

[https://www.swarthmore.edu/sites/default/files/assets/documents/visitors/swarthmore\\_campus\\_map.pdf](https://www.swarthmore.edu/sites/default/files/assets/documents/visitors/swarthmore_campus_map.pdf)

**Dorm rooms at Parrish:** Check-in will be in Parrish Parlors Monday afternoon/evening. Sheets, pillow/case, towel, blankets are provided in the room. I'll plan on being in Parrish Parlors Monday afternoon and evening (June 17). Megan Counter from Campus Events will be there too. Third floor is for men, fourth is for women.

**Internet:** The whole campus has good wireless coverage (Parrish and Science Center). Best is to use eduroam. If you need another option, we will set you up when you arrive.

**Miscellany:** There's a fitness center and a gym with track. There's a fee to use the Matchbox. Parking on campus is free. We will provide a pass. Best to park up by the Science Center (water tower lot). Swarthmore campus store has supplies if you need them. The Swarthmore Coop is a grocery store in Swarthmore Villiage.

**Food:** We have about 25 signed up for the banquet on Wednesday June 19 at the Swarthmore Inn, Sycamore Room. Another option is Essie Mae's (right next to Parrish in Clothier Hall). Essie Mae's is open 9 am – 2 pm (so not so good for breakfast). The Kohlberg Coffee bar is open 8 am-2 pm (they have light fare for breakfast). We will provide lunches in L26.

**Other food options:** There are a few decent options for dinner Monday or Tuesday night in the town of Swarthmore. All are an easy walk from Parrish. Bamboo Bistro (Chinese), Aria (Middle Eastern), Renato's (Pizza, 610-544-2300), and Hobb's (light fare, 610-624-1391) are the main ones. Dunkin Donut is open early (5 am) and late (10 pm) for coffee and donuts. Renato's will deliver (just 500 m from Parrish), so a nice option would be to have pizza, salads, and sandwiches delivered and eat out on

the Parrish patio or lawns. Renato's is open until midnight. Adventurous folks could take the R3 back into Philadelphia. Check the schedule for the R3 on the link above.

Finally, if there are any problems, please give me a call on my cell phone: 610-368-6720.

Enjoy your week at Swarthmore College! Mike

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