

# Lecture and Problem session Schedule: MSRI Gauge Theory Summer School

July 5-16, 2021

During the problem sessions, students are split into 11 groups. In Problem Session 1, half of the groups will be working on the problems related to Lecture 1 and the other half of the groups will be working on the problems related to Lecture 2. In Problem Session 2, the groups will switch which material they are working on.

Lecturers and mentors will each be responsible for 2-3 groups in each problem session, as listed in the schedules on the next two pages. Each group should be visited 2 times per session, for at most 10-12 minutes each (total 20-24 minutes in each group per session). Give students at least 5-10 minutes at the beginning of the session to start on their own before checking in on the first group to see if they have questions. Students should be encouraged to work out the problems on their own as a group, but you can answer questions or give them hints on how to get started if they get stuck. If the group is working well and does not need help, you can switch to another group and check back on the first group later.

There are four lecture sequences corresponding to the four lecturers. We have mentors to help in the problem sessions, grouped as follows:

- Seiberg-Witten: Francesco, Piotr, (Langte on Tuesday and Wednesday)
- Yang-Mills: Boyu, Joshua, (Langte on Monday and Friday)
- 4-manifolds: Laura, Sumeyra, (Francesco on day 1)
- Harmonic maps: Lynn, Tetsuya, Thomas

There is one group based in Europe—group 9. We plan for them to be present during the lectures and Problem Session 1 as scheduled, but we will shift their Problem Session 2 to be held the following day before the first lecture.

Question marks in the tables indicate that there are two options for who can supervise that group. These two people can make a plan in advance and/or communicate as things go to see who has more time to visit that group.

All times are listed in the Pacific time zone.

## Week 1 (July 5-9)

	9:00-10:15am Lecture 1	10:45-12:00pm Lecture 2	1:00-2:15pm Problem Session	2:45-4:00pm Problem Session
Mon	Laura Starkston (4-mfld)	Boyu Zhang (YM)	Boyu 1,2 Joshua 3,4 Langte(YM) 5,6 Laura 7,8 Sumeyra 9,10 Francesco 11	Laura 1,2 Sumeyra 3,4 Francesco 5,6 Boyu 7,8 Joshua 10,11 Josh(Tu 7am) 9
Tue	Francesco Lin (SW)	Lynn Heller (HM)	Francesco 1,2 Langte(SW) 3 Piotr— 4,9 Lynn 5,6 Tetsuya 7,8 Thomas 10,11	Tetsuya 1,2 Thomas 3,4 Piotr 5,6 Francesco 7,8 Langte(SW) 10,11 Lynn(Wed 7am) 9
Wed	Boyu Zhang (YM)	Francesco Lin (SW)	Boyu 3,4,9? Joshua 1,2,9? Francesco 10,11 Piotr 6,7 Langte(SW) 5,8	Francesco 3,4 Langte(SW) 2,1 Boyu 6,7,5 Joshua 8,10,11 Piotr(Th 7am) 9
Thu	Boyu Zhang (YM)	Francesco Lin (SW)	Free afternoon	
Fri	Boyu Zhang (YM)	Francesco Lin (SW)	Boyu— 5 Joshua 3,4 Langte(YM) 1,2 Francesco 6,7,8 Piotr 9,10,11	Francesco 4,5,3? Piotr 1,2,3? Boyu 8,10 Joshua 6 Langte(YM) 7,11 Josh(Mon 7am) 9

## Week 2 (July 12-16)

	9:00-10:15am Lecture 1	10:45-12:00pm Lecture 2	1:00-2:15pm	2:45-4:00pm
Mon	Boyu Zhang (YM)	Francesco Lin (SW)	Q and A Session	
Tue	Lynn Heller (HM)	Laura Starkston (4-mfld)	Lynn—— 1 Tetsuya— 2 Thomas— 3 Laura 4,8 Sumeyra 5,9	Laura 3 Sumeyra 1,2 Tetsuya 4,8? Thomas 5,8? Lynn(Wed 7am) 9
Wed	Lynn Heller (HM)	Laura Starkston (4-mfld)	Lynn—— 2 Tetsuya— 3 Thomas— 1 Laura 5,9 Sumeyra 4,8	Laura 1,2 Sumeyra 3 Tetsuya 5,8? Thomas 4,8? Lynn(Wed 7am) 9
Thu	Lynn Heller (HM)	Laura Starkston (4-mfld)	Lynn—— 3 Tetsuya— 1 Thomas— 2 Laura 4,9 Sumeyra 5,8	Laura 2,3? Sumeyra 1,3? Tetsuya 8,5? Thomas 4,5? Lynn(Wed 7am) 9
Fri	Lynn Heller (HM)	Laura Starkston (4-mfld)	Q and A wrap up	