PROGRAM MPSP SPRING SCHOOL

MAX PLANCK SCHOOL

> of photonics

JOIN US IN GARMISCH-PARTENKIRCHEN

24.-28.02.2025

AT A GLANCE:

IN-PERSON-PROGRAM

	MONDAY, 24.02.	TUESDAY, 25.02.	WEDNESDAY, 26.02.	THURSDAY, 27.02.	FRIDAY, 28.02.
9-10 a.m.		Fellow talk - Stefan Karsch	Maria Chekhova	Fellow talk - Christine	Travel to Munich
10-11 a.m.			Nicolas Joly	Silberhorn	
11-12 a.m.		Student Conference	Student		Visit of DLR
12-1 p.m.	ARRIVAL	Conference	Conference	Free time for	Campus Ober- pfaffenhofen
1-2 p.m.		LUNCH		joint excursion and sporting activities	
2-3 p.m.	MPQ visit - Vortrag:	buffer for active break			
3-4 p.m.	Vladislav Yakovlev CALA - Centre for Advanced Laser	Student Conference			
4-5 p.m.	Applications	Conference	Poster Session	PhD Meeting	
5-6 p.m.	Travel to hotel	Fellow talk - Michael Kues			DEPARTURE
6-7 p.m.		DINNER			
7-8 p.m.	DINNER Welcome evening	Science Night	Panel discussion - How to turn fails into success?	Free Evening - Offer: Movie night; Ask me anything with team	

CLICK ON EACH BOX TO JUMP TO THE DETAILS



MPSP SPRING SCHOOL PROGRAM MON 24.02. – FRI 28.02.2025

It's time to network in Garmisch-Partenkirchen! Hop on the train, and let's get started!



TALK & GUIDED TOUR THROUGH MPQ and CALA

(MONDAY, 24.02.)

Max Planck Institute of Quantum Optics

At the institute, researchers explore the interaction of light and quantum systems. Further, they handle light at single photon level where wave-interference phenomena differ from those of intense light beams. Then again, when massive particles cool down, one observes phenomena that revert to an undulatory nature. In sum, at MPQ, one takes advantage of the force that rapidly oscillating electromagnetic fields exert on electrons to steer their motion within molecules or accelerate them to relativistic energies.

Centre for Advanced Laser Applications (CALA)

At CALA, physicists, physicians and biologists are delving into the potential of an array of laser technologies. Their principal goal is to develop cost-efficient methods for detection and therapy of cancer and other types of chronic disease. Current efforts focus on the use of high-intensity X-rays for diagnostic biomedical imaging, and the application of laser-generated proton and carbon-ion beams to tumor

therapy. Also, CALA's researchers are investigating approaches to the analysis of blood samples and expired air by means of high-resolution laser-based infrared spectroscopy, which could provide the basis for risk-free screening procedures.



STUDENT CONFERENCE

(TUESDAY and WEDNESDAY, 25.-26.02.)

Due to its outstanding success, we will have the second MPSP Spring School Conference during the Spring School 2025 in Garmisch. We hope to have an interesting and diverse program covering a wide range of the research that is being done within our school. But to make this possible, **we need your contributions**!

You have the opportunity to present your research (may it be your main PhD project or some other interesting topic) in an informal atmosphere as a **15-min talk** (+5 min setup and QnA) **or as a poster**.



FELLOW TALKS

(TUESDAY, WEDNESDAY + THURSDAY, 25. - 27.02.)

Within the framework of the Spring School you will not only have the opportunity to listen to results other PhD candidates have arrived at in their research during the Student Conference, but you can also expect a few longer talks by our fellows distributed throughout several days.

We hope that these lectures will broaden your knowledge and that you

will gain a deeper understanding of the research and work of our fellows.

Maria Chekhova: Generation of entangled photons from metasurfaces and other 'flat' sources

- **Nicolas Joly:** A few (exciting?) applications of microstructured optical fibre
- Christine Silberhorn: Photonic quantum technologies: from integrated quantum devices to designing large complex systems



TUESDAY

SCIENCE NIGHT

(TUESDAY, 25.02., 7-9 pm)

Science is best when shared—so **let's** talk! At our Science Night, you come together in small groups to discuss exciting research topics in a relaxed and informal setting. This is your chance to exchange ideas, ask thoughtprovoking questions, and dive into stimulating scientific conversations with peers from various fields. Join us for an evening filled with curiosity, insights, and lively debates. Come, connect, and enjoy discussing what you love most—science!



THE POSTER SESSION

(WEDNESDAY, 26.02., 3 - 6 pm)

As in the previous year, you will again have the chance to exchange ideas on your research in a poster session.

We ask all research phase candidates as well as senior study phase candidates (who do not give a talk during the student conference) to prepare a poster about a current research project.

Please fill in the following form the title of your poster latest until 12:00 on 20.02.2025 (Thursday), so we can prepare an overview of your posters for the event:

https://forms.office.com/e/i9fJOzMeGn



By the way, in the Virtual Campus you will also find MPSP templates for your poster design in PPT, which you are welcome to use.

PANEL DISCUSSION

(WEDNESDAY, 26.02., 7-9 pm)

Failure is a part of science – but how do we deal with it? What setbacks have researchers faced, and what have they learned from them? In our panel discussion our Fellows will share their experiences with mistakes, failed experiments, and unexpected challenges. Together, we will explore how setbacks can lead to valuable insights and how to navigate failure in a constructive way.



SOCIAL AFTERNOON IN GARMISCH

(THURSDAY, 27.02., 11 am-4 pm)

Social Program in Garmisch

Should you have grown tired from listening to the scientific lectures offered, it is about time to go outside for a breath of fresh air. Explore the areas surrounding Garmisch and become more familiar with your fellow MPSP students by partaking in some of the following activities. For instance, feel free to spend your leisure with joint excursions (i.e. hiking) to Berggasthof Eckbauer, Eibsee, Partnachklamm (Partnach Gorge), or Germany's highest peak, Zugspitze.

The remaining options available relate to doing sports, such as tobogganing (e.g. on Rodelbahn am Grasberg and Rodelbahn Partnachalm) and skiing. For the latter, Kochelbergrunde, including Loipe Hausberg is of moderate difficulty. However, keep in mind that the ski lift tickets alone amount to 64 euros per day.

VISIT IN DLR

(FRIDAY, 28.02.)

On Friday, we will have the opportunity to visit the Campus of the German Areospace Center (DLR -Deutsches Zentrum für Luft- und Raumfahrt) in Oberpfaffenhofen. With about 2000 employees in 13 scientific facilities, the DLR site in Oberpfaffenhofen is one of the largest research centres in Germany. Here, the areas of focus include participation in space missions, climate research, Earth observation, the development of navigation systems and the further

development of robotics technology.



MPSP TRAVEL EXPENSES

WHAT TO DO SO WE CAN PAY FOR YOU

PRIOR TO YOUR JOURNEY

Always hand in a Business Travel Request to your employer or University. For **Study Phase** candidates, we will arrange and pay the hotel booking, but please buy the travel tickets for yourself.

Research Phase candidates will be reimbursed after the event.

Do you have a contract of employment* with the FSU Jena (Staat Thüringen)?

*also Hiwi and/or Part-time Contract!

- PhD candidates: use the "Reisekosten-portal" of FSU Jena and/or the procedure required in your institute to to submit a travel expense request
- **Hiwis**: use the form downloadable from the Virtual Campus
- Use following the PSP-element in the new system: Z-74-00076-02-17010000
- Do it at least <u>2 weeks before the travel</u>

Hand in a Business Travel
request

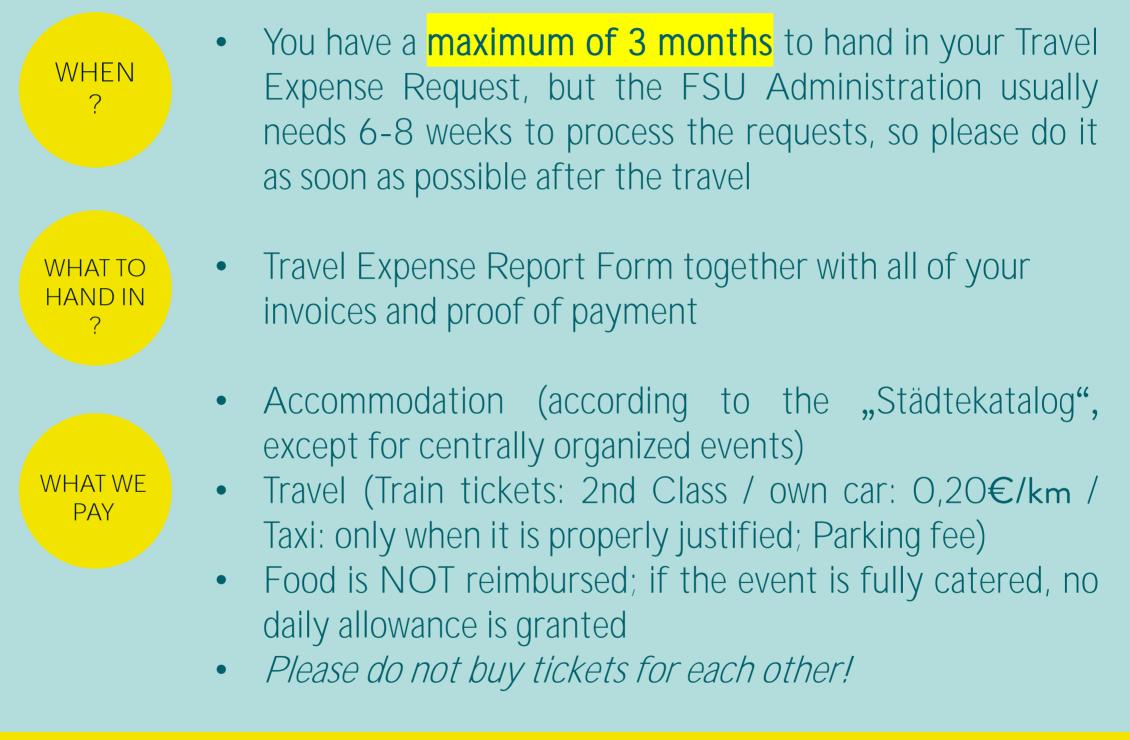
ZO

- at your workplace / institute
- You'll have a guest status at FSU

MPSP TRAVEL EXPENSES

WHAT TO DO SO WE CAN PAY FOR YOU

AFTER YOUR JOURNEY



You can find detailed information about Business Travels and the downloadable Forms to use on our Virtual Campus under <u>MPSP Office/General Administrative Resources/Business Travel</u>



SEE YOU AT THE MPSP SPRING SCHOOL!

Any questions regarding the program? Simply send an email: photonics@maxplanckschools.de

