DESY FH Seminar Programme Taskforce Recommendations

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This document, as well as notes, slides, posters and other material can be found in the SemProg TF indico pages here: https://indico.desy.de/event/37373/

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Introduction, considerations and input

From the mandate / scope

The original Task Force Mandate can be found in the Appendix of this document. As described in the mandate, seminars and colloquia educate and inform local researchers about scientific developments and inspire further discussions and reflections

The covered topics range from detailed technical discussions to broad overview presentations. Researchers from different groups discuss across and beyond working group boundaries. At seminar events, individuals have an opportunity to get to know each other and discuss informally. Speakers can gain visibility and advertise their expertise and achievements. The DESY FH seminar programme should consist of a variety of periodic events targeting different audiences and levels of detail.

Since its initiation in early 2022, the Seminar Programme Taskforce met about ten times (via zoom) [https://indico.desy.de/category/937/] to:

- take stock of the current DESY seminar/colloquia programme
- collect and discuss requirements of an ideal programme
- discuss the role of hybrid events in “post-COVID” times
- discuss possible other inputs (e.g. an FH-wide survey) as well as input from other sites.

Input was received and collected in many informal discussions with DESY colleagues, in meetings with the Early Career Scientist Board, and with chairs of the task forces for detectors and for scientific computing.

As input to the retreat in August, the following guiding ideas were formulated:

- How can seminars and colloquia best educate, inform and inspire about scientific developments?
- How can the seminar program foster exchange between different groups within FH?
- Which elements in the seminar program can especially encourage young researchers to educate themselves beyond their own field of work? How can we get people back to seminar rooms after the pandemic?

A final proposal for a seminar programme was presented at the Retreat Follow-up event in December [https://indico.desy.de/event/36788/]. At this point, seminar chairs are being appointed by the FH director, such that the seminar series can be launched in early 2023. The first half of 2023 should be viewed as a pilot and implementation phase, during which the recommendations will be tested, and modified or improved, as necessary. Initial feedback will be sought individually and in person, but we also plan for a more detailed survey once some experience has been gained by participants and organisers.

Scope:

Cross-group interaction and collaboration are a central purpose of a seminar program, and thus the Seminar Programme TF focused on seminars that are cross-group events. The aim is to achieve communication among individuals from different DESY groups and other DESY divisions, with institutes within Germany (UHH, HU, HGF) and internationally. The following previous seminars were identified:

- the Particle and Astroparticle Physics (P+AP) Colloquium,
- the LHC physics discussions
- the Pizza Seminar
- the Instrumentation Seminar
- the Computing Seminar

These and other events grew and developed organically over the past decade, and the new post-COVID conditions and opportunities are not yet reflected. We consider this previous programme as largely successful, comprehensive, coherent, and attractive. We propose a few marked modifications to the currently existing seminar programme that aim to widen the range of topics, to deepen the level of detail, and to enhance regular participation. The proposed programme comprises five different events in three regular timeslots.

After an implementation and test phase in the first half of 2023, during which we gain experience with specific formats in post-pandemic conditions, it is planned to take stock and to make improvements or modifications.

Communication, advertisement and feedback

A significantly improved level of transparency as to when which seminars take place and what the topics are, is key to regular and enhanced participation.

We propose to manage FH Seminars via one central DESY FH seminar indico page. A category has been set up on indico [https://indico.desy.de/category/956/]. Indico facilitates simple, synoptic calendar overviews - [daily], [weekly], and monthly [1] [2] - of upcoming and past seminars. An improved and/or filtered view could also be generated via script (e.g. [indicomb]).

As documented in the central indico, the future seminar program should be advertised via:

- the biweekly Newsletter: the Newsletter plays a crucial role in creating transparency and plannability within FH.
- TV screens in hallways and coffee areas. Such screens could also display status of machines (LHC, KEK, DESY testbeam) and the various experiments that we participate in.
- Email and posters as before, but with the following provisions:
    - The emails should be coherent in style, so people can better distinguish at a glance which seminar is announced and for when. We recommend to create simple, compatible but unique formats for the seminar announcements.

    - Per-event emails should be sent maximally twice, once for the longer term announcement, and once as a reminder, e.g. on the day before the event, or on Monday morning.
    - Events that come in different guises, like the QU Colloquium and the DESY AP+P Colloquium, should still only be announced twice, and not from different sources.
    - Leading by example: supervisors should advertise seminars to students by attending them.
- For written, optionally anonymous, feedback, a seminar programme dropbox will be created in a DESY-internal webpage, where people can suggest seminar topics and/or give other feedback.

Indico as a central seminar planning tool will also help chairs communicate with each other across different seminar formats, and select topics. With sufficiently long-term planning, it becomes realistic to organize satellite events, e.g. invited external speakers to the DESY AP+P Colloquium may be available for follow-up or preparatory discussions with interested groups.

“Hybrid” vs In-Person

The SemProg TF regards large in-person participation as a must in order to facilitate focus, inspiration and communication between participants and speakers, also before and after the seminars. Online participation does not create an equally productive atmosphere. However, in practice, requirements for online participation exist. We recommend that seminars are organised as in-person events with a Hybrid option where necessary. To this end, the seminar room should be equipped with high-end audio facilities. The ceiling microphones in most seminar rooms are not up to the required standards.

Requirements to organise seminars in Hybrid mode:

- Most importantly, Hybrid is necessary to connect Hamburg and Zeuthen.
- In general, Hybrid formats allow for a wider circle of people, and groups, to participate, e.g. in cases where participants can not attend in-person or, also, in cases where e.g. the in-person seminar room is too small.
- Hybrid also allows to invite people from other institutes regularly. Within Germany, invitations to the AP+P Physics Seminar, aka “DESY Seminar” can help our role as hub and strengthen our connection to the universities.
- Ultimately, speakers can be remote, e.g. in case they can not travel (for various reasons) - or if they prefer not to make in-person presentations in Hamburg and Zeuthen on two consecutive days. A lot of experience with such Hybrid seminars has already been gained with the AP+P Colloquium.

In order to fulfil the requirements and benefit from the advantages of Hybrid events, a number of issues should be addressed and resolved. Not all of them have straightforward solutions, but rather depend on general habits, and collective practice.

- Remote participants tend to remain passive and do not interact with other participants or with the speaker(s). The attention of remote participants is often reduced, as they are distracted by other things on their computers or elsewhere.

=> We recommend discouraging remote participation as much as possible.
    - Supervisors should be aware of their responsibility as role models.
    - Registration for Hybrid participation could help impose a “symbolic threshold”.
- High-end audio and video equipment
- Establish communication standards for Hybrid, e.g. self-introduction of people speaking.

Input from Early-Career Scientists (ECS)

ECS Board representatives expressed their views and wishes.

- Participation in seminars can be enhanced through clear communication by the supervisors. Implicit assumptions exist among PhD students that supervisors prefer for them to work on their projects instead of attending seminars.
- Staff members should contribute actively to advertising events, in order to increase ECS attendance.
- ECS’s are interested in what they can get out of the seminars when prioritising their busy agenda. For example, if it is networking, the atmosphere is important. This includes the social atmosphere around the seminar and the availability of food and drinks, which has the additional benefit of extending the physics discussion beyond the Q&A part of the seminar. Additionally, if ECS participation is expected, the topics should be relevant also for them. Surveys could help identify topics of interest.
- Additional events that would be specifically directed at young scientists are not desirable. Inclusion in the FH seminar program of more topic-specific seminars already existing (String theory, machine learning, quantum computing, etc.) would allow participation of people currently not interested in the topics provided. There are already a number of events directed at ECS, e.g. QU, Pier seminars, Fellow meetings, DOIT seminars, CERN online seminars
- Having said that, on occasion, “satellite events” with external speakers at regular seminars will be attractive to have.

A lot of input from ECS was also received during the poster presentations at the retreat in August where the SeminarProg TF posters drew the most attention from ECS: https://drive.google.com/file/d/1bBJKtLfWIU1qPmxkEKz-Xgw2Bd2e-vrK/view pages 55-62

The proposed seminar programme

Table overview

Seminar	**Particle and Astroparticle Physics Colloquium**	**Particle Physics Discussions**	**Pizza Seminar**	**Instrumentation Seminar**	**Scientific Computing Seminar**
Time slot	~weekly HH: Tue 16:00 Z: Wed 13:00	~monthly Monday 11:00	~monthly Monday ~11:30	~bi-weekly Friday 14:00 (proposed)	~bi-weekly Friday 14:00 (proposed)
Purpose	General education broad-range discussions Flagship event	FH particle physics cross-group discussion & networking	FH particle physics cross-individual discussion & networking	General education about detectors	General education about software & computing
Speaker	External expert	Internal experts	Internal or also external expert	External and internal	External and internal
Audience	All FH UHH, HU invited	40-50, topic-dependent audience	30, topic-dependent audience	30, also from UHH and FS	30, also from UHH, FS, AP, M
Co-chairs	FH + AP	FH only	FH only	FH, UHH and FS	Initially FH only
Format	One presentation 45+15	Several talks from FH groups (th + exp) on one or more topics	One talk 30+30	One presentation 45+15	One presentation 45+15
Social Program	Tee/coffee before Drinks after Dinner Possible satellite mtgs.	Possibly lunch in small group afterwards	Lunch together	Coffee&cake before and after Lunch with (external) speaker	Coffee&cake before and after Lunch with (external) speaker

Specific recommendations

Particle- and Astroparticle Physics Colloquium

- Chairs: Judith Katzy, Roman Kogler, Kai Schmidt-Hoberg
- The DESY Particle and Astroparticle Physics Colloquium, in combination with the other proposed seminars fully cover our needs. We do not need an additional FH-wide seminar format.

- Hybrid vs duplication of talks. The current plan is to have AP Colloquia from Zeuthen on Wed that are Hybrid in Hamburg, and P Colloquia from Hamburg on Tue, that are Hybrid in Zeuthen. Speakers will still often go to both places in person. In the future we may have just one fixed slot for both HH and Zeuthen, with hybrid participation. A survey is planned for mid 2023 to see how the seminar programme is perceived after the in-person restart after the pandemic.
- Discussion about the time slot Tue 4 pm: The current time slot 4 pm is not family-friendly. However, an earlier time slot on Tuesday could make travel for speakers more difficult. This argument does not apply if speakers do not go in person to both Hamburg _and_ Zeuthen. The coffee break at 15:30 before the seminar is intended to draw participation and it seems to work nicely.
- The P+AP Colloquium was usually also announced as “QU Colloquium”, and this led to duplicate emails and confusion among prospective participants. The issue of duplicate emails has recently been resolved, and there is now only one email list, seminar@desy.de, that is used for the announcement of the P+AP Colloquium.
- We still want to keep the existing webpage, as a copy of the central indico category. We believe that the page is well known and often checked for past and future presentations.

Particle Physics Discussions, biweekly Monday, 11:30 am

- Chairs: Jürgen Reuter, Claudia Seitz, Aaron Spector
- Alternating with Pizza seminar (see below). Each seminar type takes place once every 4 weeks.
- Same or similar time slot, 11:00 or 11:30, as Pizza
    - being done *before* lunch ⇔ Particle physics discussions, 60-90 mins.
    - having the seminar *during* lunch ⇔ Pizza seminar, 60 mins.
- It is useful to have the same small group of conveners cover both events:
    - recommend three active chairs (1 ATLAS or CMS, 1 other experiment, 1 theory) and informal contacts for other groups. A clear responsibility helps avoid unnecessary extra coordination work among too many chairs.
- The duration of the format was discussed repeatedly, and compared to the length and intensity of the previous LHC Physics Discussions events which often had three presentations, and were, as some thought, sometimes somewhat on the heavy side. However, this opinion was not shared by all. The following format has been discussed as an option:
    - Several **short** presentations (same topic, different FH groups) followed by discussions (which ideally is prepared)
    - Single, seminar-style presentation of recent result, or FH-group or subgroup activity.
    - Bigger event, a la previous LHC Physics Discussions, only 1-2 x per semester
- Given topics vary, we expect different groups of people to attend single events, as was the case for the LHC Physics Discussions
- To do: check the possibility of lunch table reservation at the canteen or elsewhere.

Pizza Seminar, biweekly Monday, 11:30 am

- Chairs: Jürgen Reuter, Claudia Seitz, Aaron Spector
- Alternating with the Particle Physics Discussions (see above) in a similar timeslot at 11:30 am. Each seminar type takes place once every 4 weeks.
- One specific topic/paper or project, ideally with a speaker who really did the work.
- Given that topics vary, we expect different groups of people to attend single events.
- Important: participants are expected to prepare for the Pizza seminar. This requires the announcement of events and corresponding paper(s)/projects/topics early, so people have time to read.

Instrumentation Seminar, biweekly Friday, 2 pm

- Chairs: tba
- The seminar is a well-established, internationally relevant event with usually external speakers, and organized together with DESY-FS and UHH.
- MT seminar from time to time, e.g. twice per semester, the Instrumentation Seminar could be “Hybrid-broadcast” to or from other HGF institutes. FS is also included in the discussion of this question.
- There is also a monthly FH+FS internal Detector Seminar, Monday at 9 am. It is still under investigation whether this seminar format should be merged with the Instrumentation seminar and take place in the same timeslot on Friday at 2pm.

Scientific Computing Seminar, biweekly Friday, 2 pm

- Chairs: tba
- This seminar uses the same time slot as the instrumentation seminar, and takes place in the off-weeks. Coordination between the Instrumentation seminar and the computing seminar is minimal.
- Recommend to have seminars in the same room, so the block booking would also allow for week-swapping where unavoidable.
- The SC seminar should initially be organized as FH-event, inviting participation from UHH, FS, AP, M. Co-chairs from other divisions can be considered.
- A strong motivation to start a new seminar on scientific computing is FH-internal networking and communication.
- A seminar with Focus-Training exists in Zeuthen (“Zeuthen data science seminar”, hands-on tools, tutorials, exchange on recent software problems). It was agreed that this seminar is initially not going to be part of the DESY Seminar Program.

Other seminars and events

Several other types of seminars exist which take place regularly or irregularly

- Theory Colloquium: broad range across the 3 theory areas string, pheno, cosmology. Organized jointly between DESY Theory and II. Inst. of UHH.
- Particle and Astroparticle Theory Seminar: more detailed expert-level discussions (mainly pheno and cosmology)
- Terascale Theorist of the month seminar: 4-6 times per year for visiting theorists, 1h seminar on more general theory topic
- Terascale Analysis center seminar: 40-minute seminar on a specific topic, usually by visiting scientists
- Several events exist, organized within FH and by PIER that are directed at Early Career Scientists. No additional seminar directed at ECS is needed.

Possible other events have been discussed - some not necessarily in the scope of the SemProgTF. They may be reconsidered in the future.

- FH Jamboree, every once in a while, for a few hours, with short presentations 7+3 by more different people.
- DESY-wide events (a few times per year)
    - Achievement breakfast for larger audience
    - TED talks
    - DESY-wide Colloquium
- in-reach events, also for technical and admin personnel
- social events (à la Science Café for all DESY personnel)

Implementation and Challenges

Implementation:

- We recommend to (re-)appoint two, maximally three, chairs per seminar series.
- Block reservations for (large) seminar rooms (Hamburg: SemRm 4, 2 or 1 - in decreasing order of preference) are necessary.
- The implementation of the indico category should be completed, and then linked to the relevant places on other DESY web pages, and regularly published via the Newsletter.
- In addition, we propose to put the calendar view of the seminar programme on TV screens in a few selected places in the hallways.
- Review and update of email lists for announcements is also necessary.
- Infrastructure for (anonymous) feedback should be put in place and advertised.

Challenges:

Seminars should again become professional and social fix points in everyone’s regular schedule. The programme can be successful if a sufficiently large number of people return to attending the seminars in person, and hybrid attendance is only used if unavoidable.

Summary

The DESY FH Seminar Programme Taskforce focused on seminars that are cross-group events. Interactions before and after are as important as the presentation itself.

Starting with the previous seminar programme which we found generally coherent and attractive, we identified a few possible modifications with the goals to enhance coverage, participation, and impact; to widen the range of topics and deepen the level of detail; improve communication, advertisements, and feedback; to cover needs for remote participation (“hybrid”); and to improve the social component.

A number of tools for advertisement and feedback are being set up, including an indico category, and coherent email lists.

In order for the seminar programme to be successful, large in-person attendance will be critical. In-person attendance is required to achieve a social atmosphere, mental focus, inspiration, and communication, also before and after the seminars. However, remote attendance provides important advantages, esp. for events with DESY Hamburg and Zeuthen, involvement of other institutes (Terascale, HGF, international), and also remote speakers. Most seminars should technically be set up as hybrid events, i.e. with options for remote participation, if necessary.

The recommended modifications are currently being implemented. After an initial testphase It is planned to review the experience at the timescale summer 2023, and apply possible modifications.

Appendix

Mandate

Task Force on Particle Physics Seminar Programme (Mandate)

Members: A. Meyer, K. Schmidt-Hoberg, F. Blekman, C. Seitz, S. Spannagel, K. Krueger, M. Diehl, Isabell Melzer-Pellmann, Klaus Moenig, C. Schwanenberger

Traditionally, a range of seminar and colloquia programmes is conducted such as the Joint HEP/AP Colloquium, the LHC physics discussion, the Pizza seminar, the Theory Colloquium, the Joint Instrumentation seminar and many others. An initial list is available here: https://www.qu.uni-hamburg.de/research/seminars-colloquia.html. It is in part shared with the University of Hamburg. Seminars and Colloquia : Quantum Universe

This programme has grown organically over the past decades and does not yet reflect the new post-COVID opportunities of including virtual lectures. Seminars and colloquia serve several purposes:

- Inform and inspire the local researchers about new developments
- Foster discussions between researchers in different groups
- Provide platform for detailed discussions (technical and physics)
- Educate the early career (and all other) researchers
- Provide opportunity for researchers from different groups to meet and to get to know each other.
- Serve as internationally (or locally) visible platform for speakers
- Provide opportunity to invite (more) external (and young) researchers to visit DESY

This task force should

- take stock of the current seminar/colloquia programme, and quantify the number of occurrences and typical attendance and scientific coverage
- explore the seminar programmes at peer institutions and take inspiration from it
- conduct a survey of the needs/wishes of researchers via informal and/or organised discussions
- define requirements of what we want from the programme
- consider the role of online, or “Hybrid”, events in “post-COVID” times
- make suggestions on how the seminars and colloquia should be communicated
- suggest actions for the future on what could be done after the end of the pandemic situation to offer a programme that serves all the needs.

The task force should provide an initial report end of August 2022 to present to all interested parties in the division, and a final report in October 2022 after digesting and incorporating the feedback. The task force reports to the FH director.