



Online Seminars

Kick-Off meeting
Monday, September 28

Presenter: **Andreas Döpp**

Moderator: **Markus Büscher**

Welcome

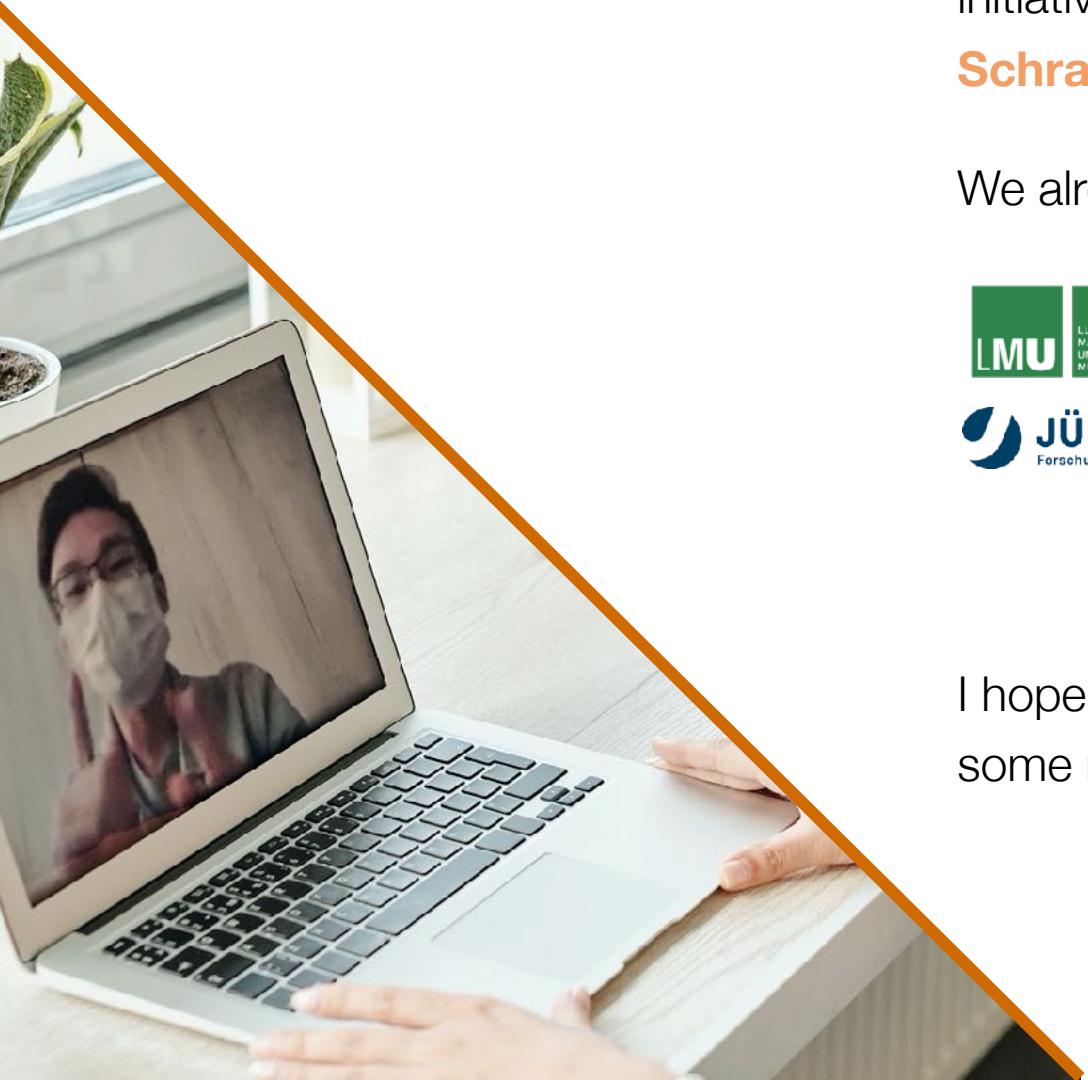
... and thank you for joining!

Thank you for the overwhelmingly positive feedback regarding this initiative! Special **thanks to** Markus **Büscher**, Victor **Malka**, Ulrich **Schramm** and Stefan **Karsch**.

We already have confirmed participation by



I hope that all of you are still 'in' after the presentation ... and maybe some more.



Meeting Outline

A photograph of a person wearing a mask and glasses, seen through a laptop screen. The laptop is on a wooden desk. In the background, there are two potted plants on a windowsill.

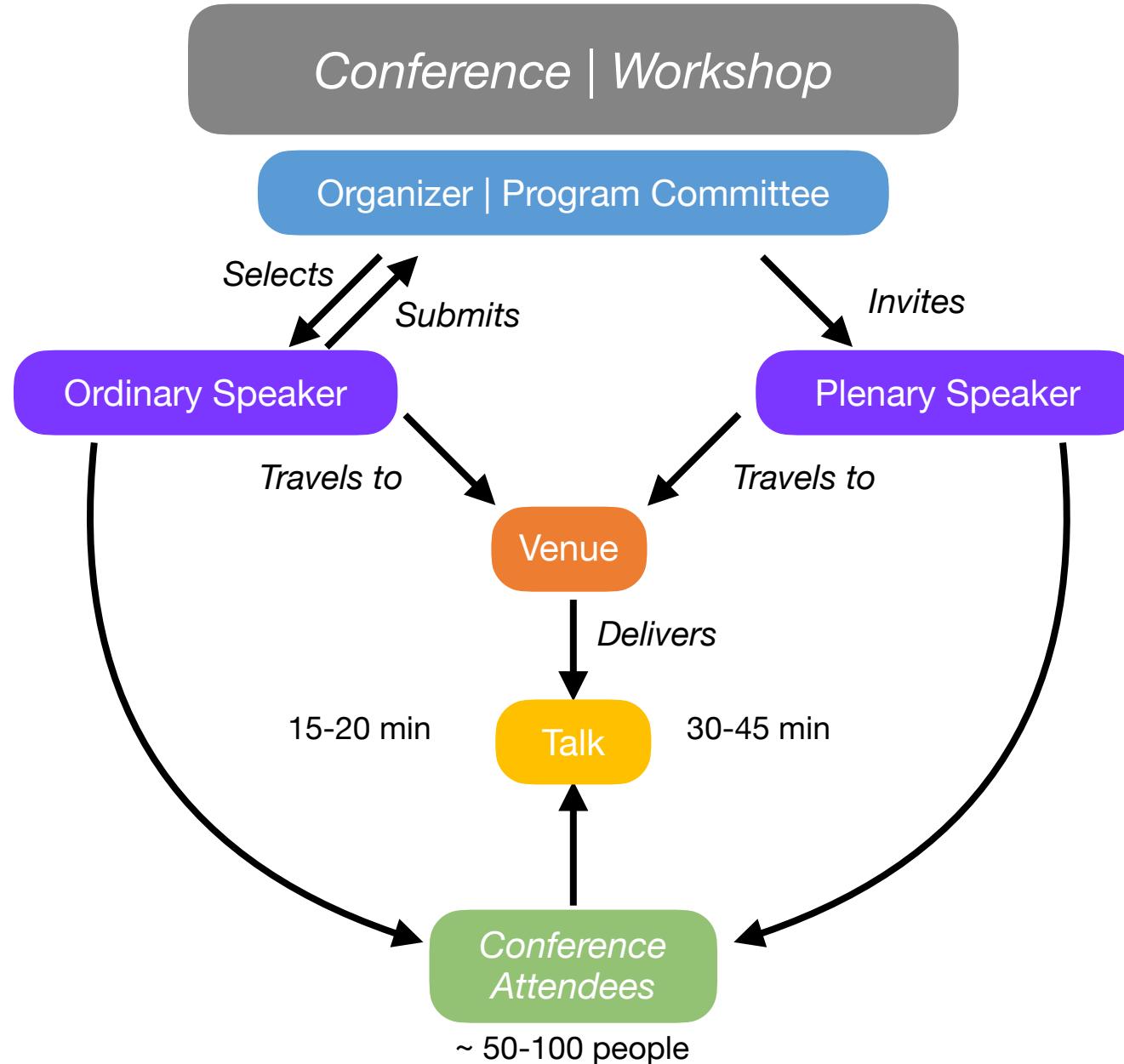
- I. Motivation & Concept
- II. Practical Implementation
- III. Discussion

Motivation & Concept



1

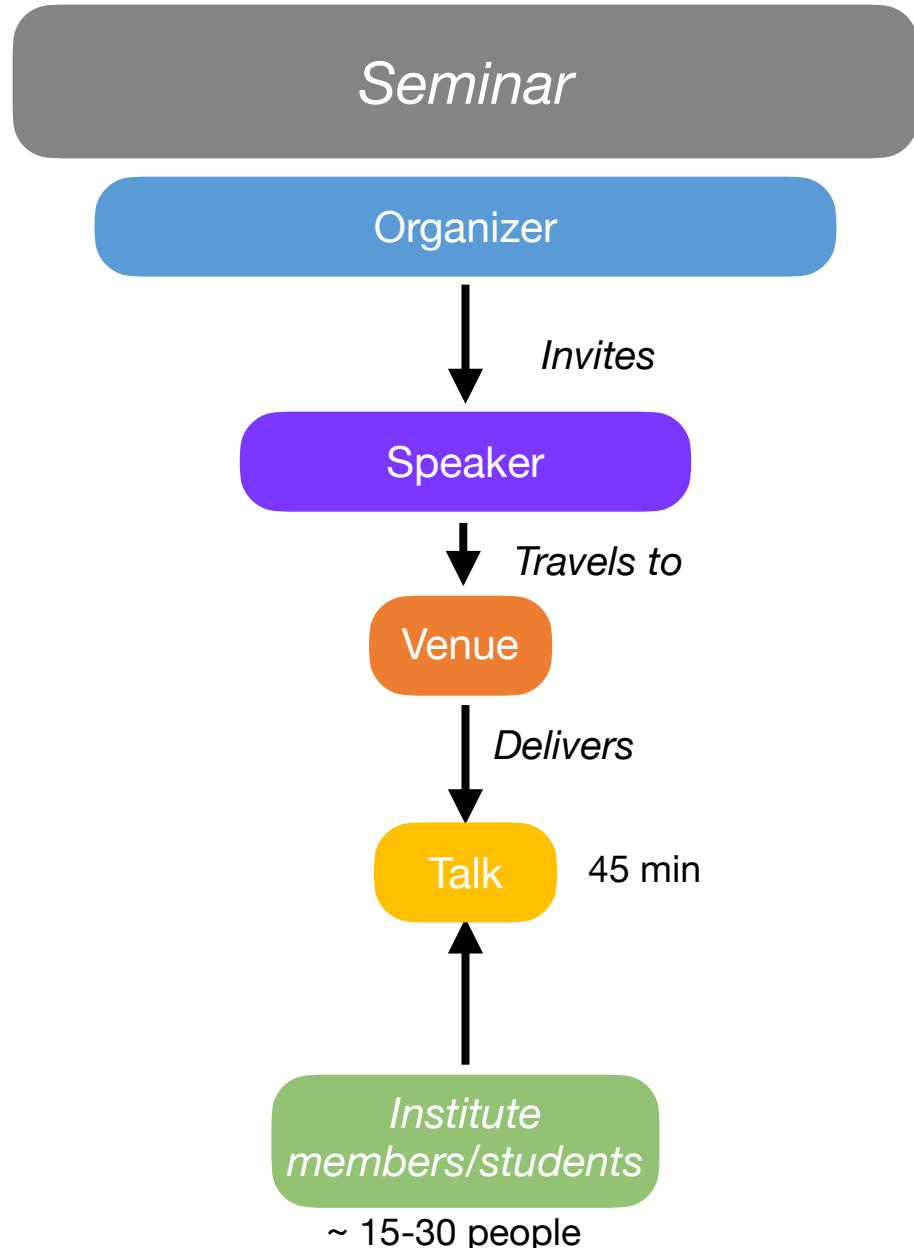
Academic discourse | **Before COVID-19**



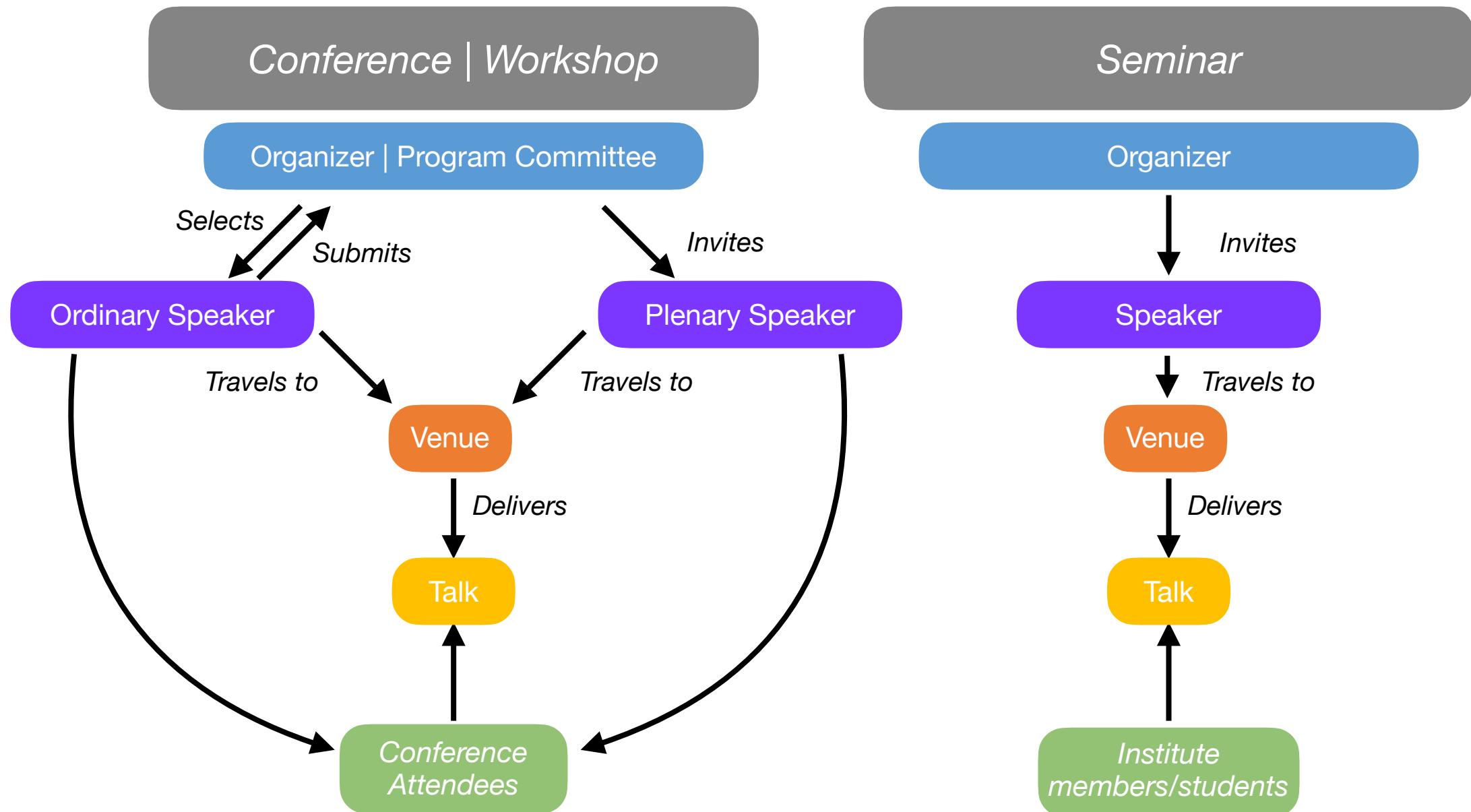
- Contributions by different institutions from all over the world
- Offers a “Menu“ of talks
 - Long overview and short specialized talks by experts and graduate students
 - Sessions for many different specializations (laser electron acceleration, laser ion acceleration, etc.)
- Regular talks are rather short
- Takes place every 1-3 years
(*LPAW, AAC, IPAC, etc.*)
- **Need to travel to attend. Expensive.**
(PhD students usually attend only 1-2 within their studies)

Academic discourse | Before COVID-19

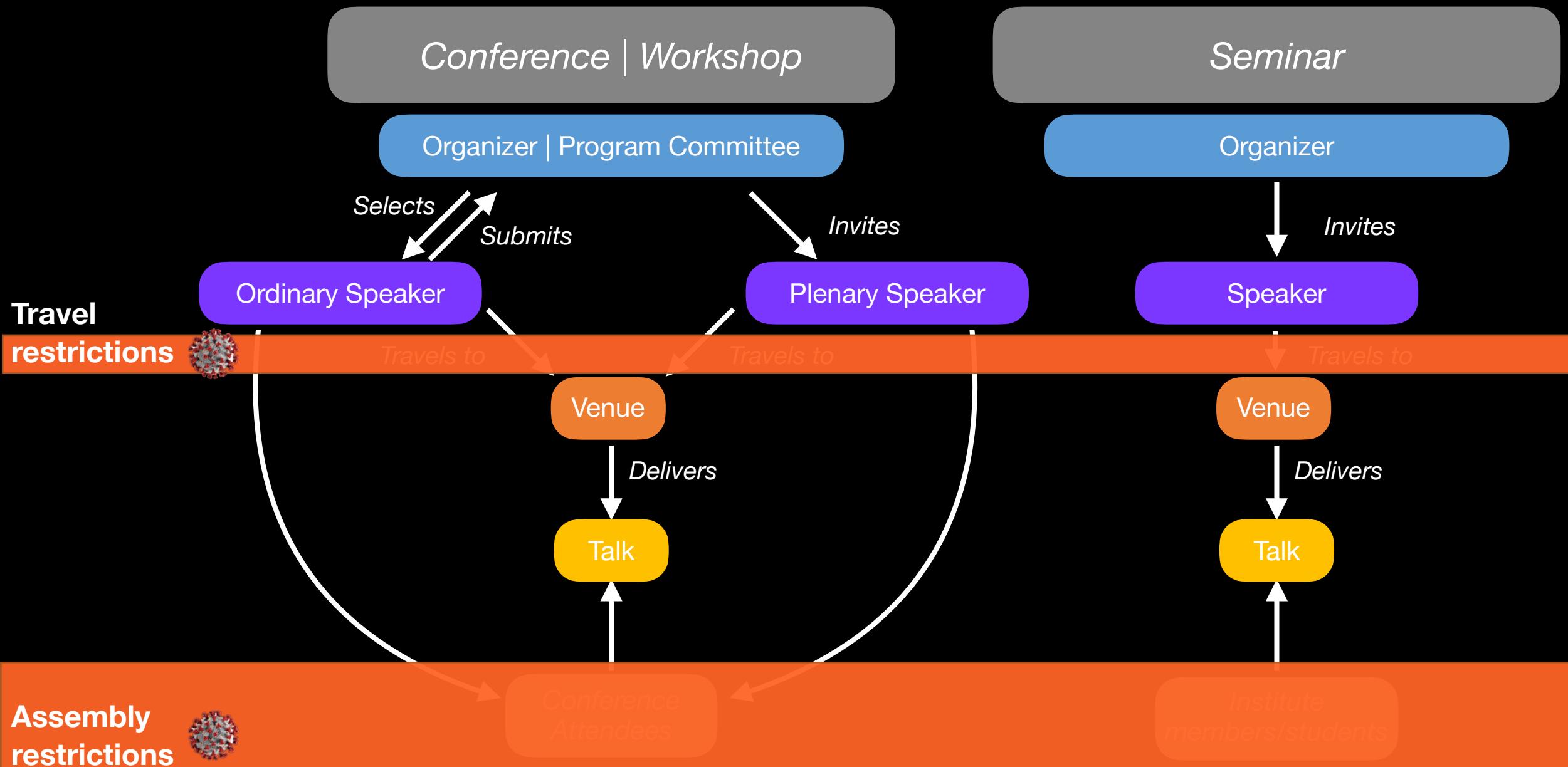
- Both local and external contributions
 - Often distinguished external speakers (visitors) or
 - Local researchers/students
- More time, more pedagogical
- Talk „comes to you“
- Frequency depends on lab-size (from one per year to a few per month)
- Much less choice - few of them will directly lie within your specialization



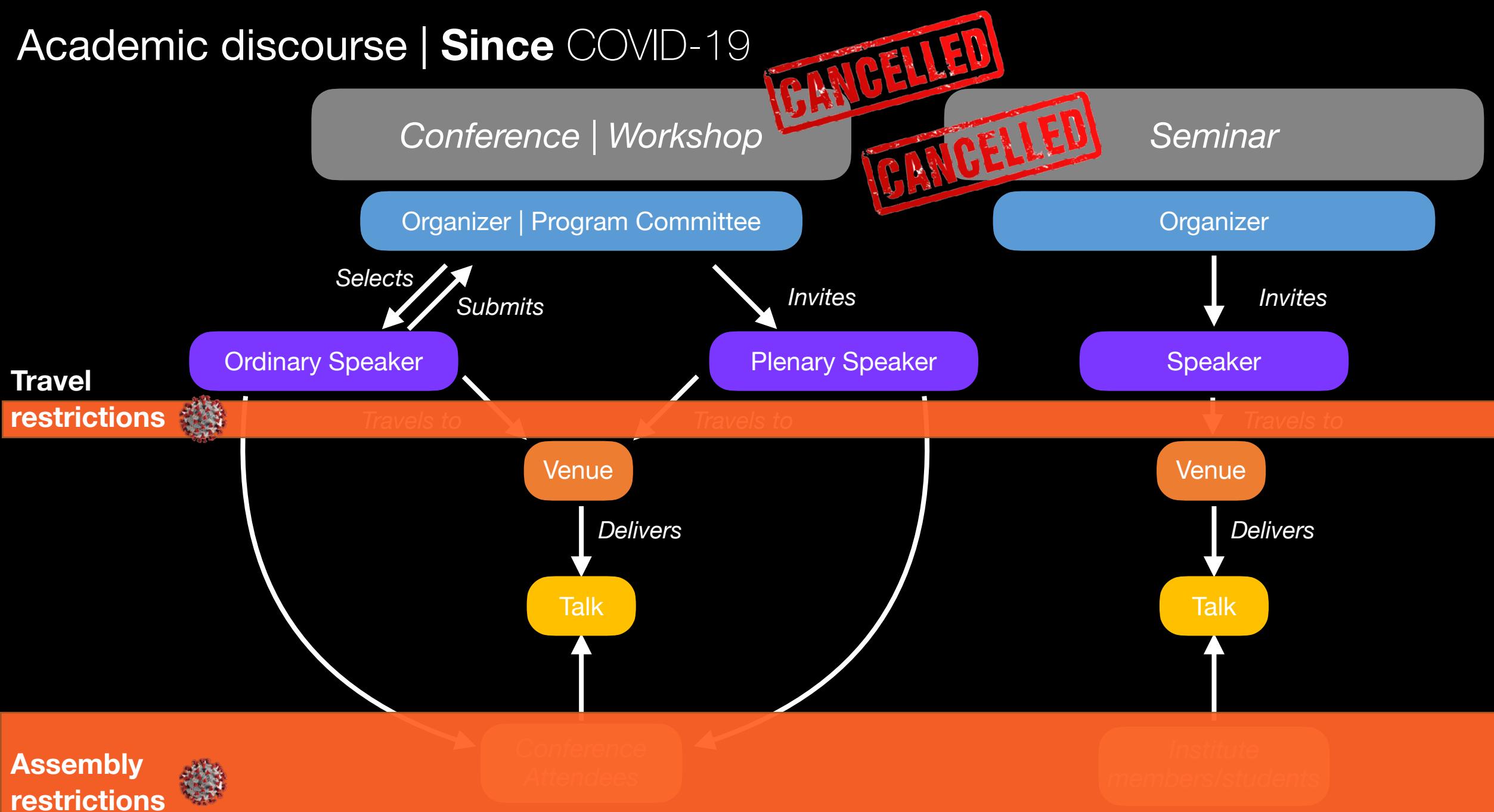
Academic discourse | Before COVID-19



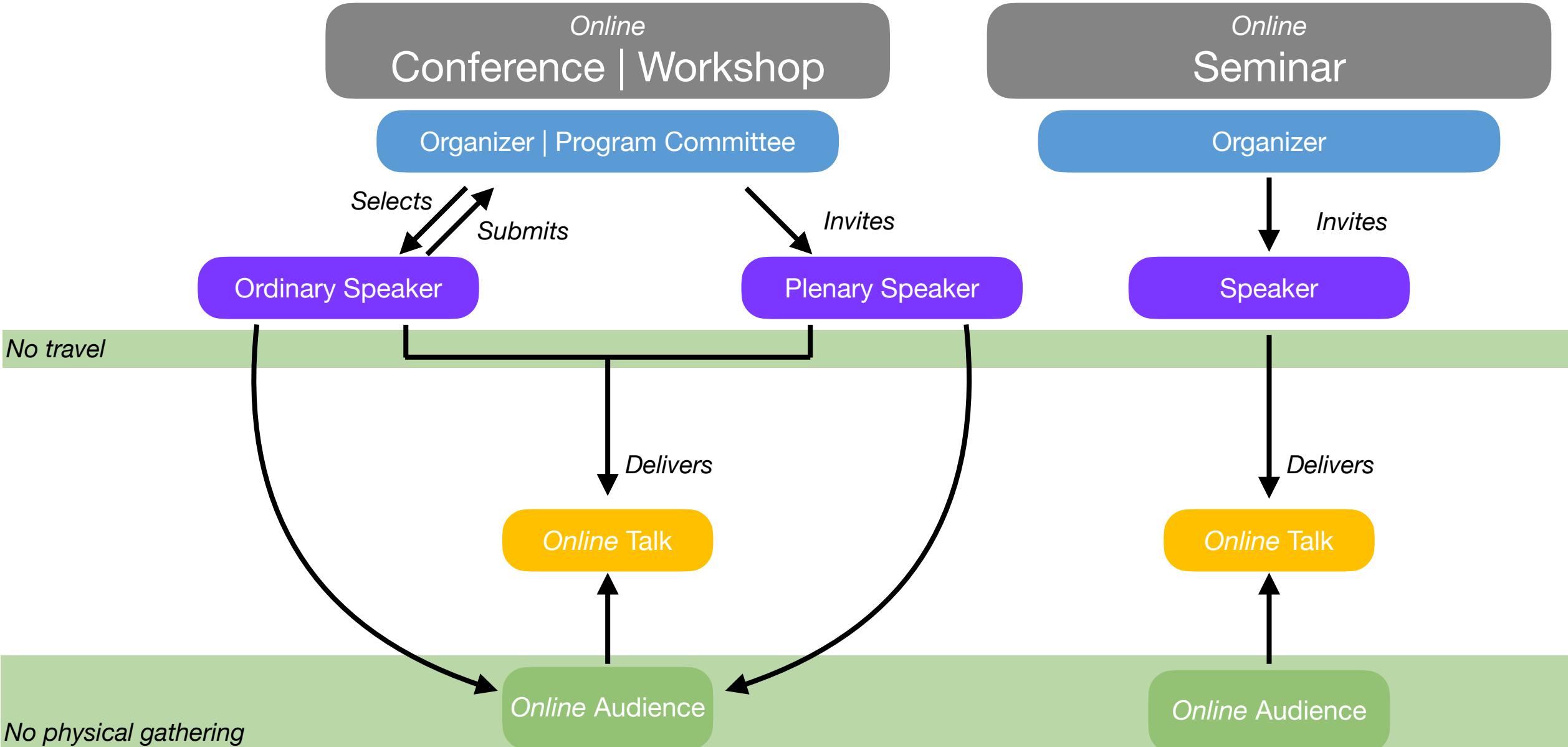
Academic discourse | Since COVID-19



Academic discourse | Since COVID-19



Since COVID-19

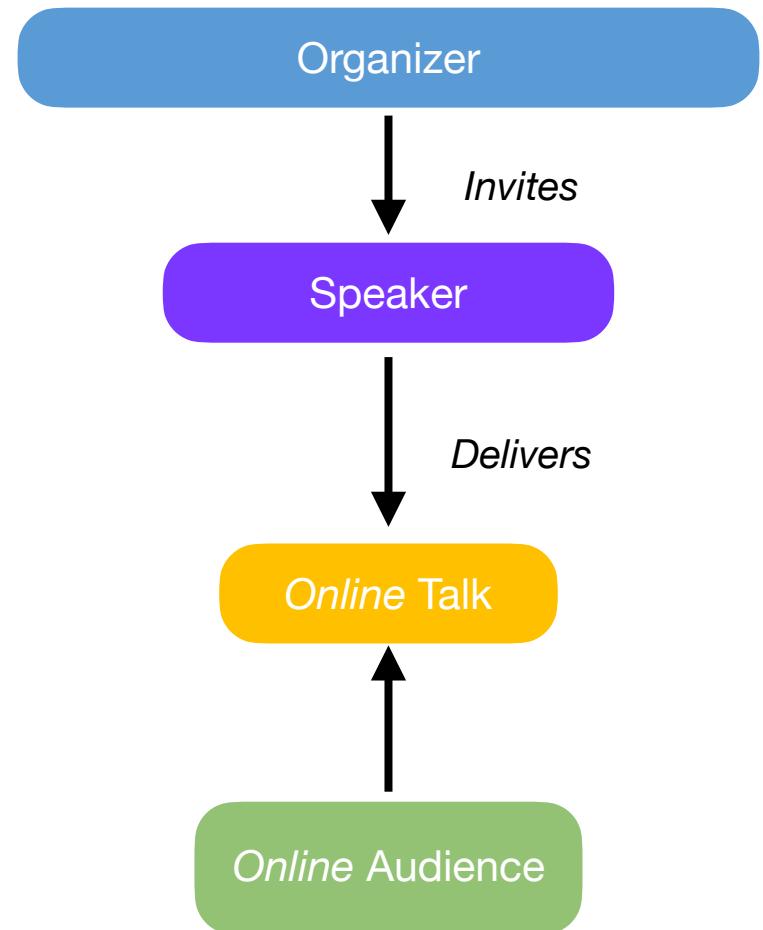


Since COVID-19

Example: Quantum Science Seminar

- Quantum Science talks for broad audiences (initially based on ICAP-27: International Conference on Atomic Physics)
- Started Mid-April. One seminar every Thursday at 17:00 (45 minutes plus questions)
- YouTube Streaming via Zoom
- European initiative – US “sister-seminar” vAMOs

- + Exemplary organization (*we will discuss this later*)
- + Well received (*hundreds of views per talk*)
- Limited number of seminars
(*requires committee for selection; representation problem*)
- Only distinguished speakers (*like invited plenaries*),
no time for „regular“ talks from students, etc.
- Fixed time and format, not flexible (*e.g. people with appointments on Thursday afternoon can never attend live*)

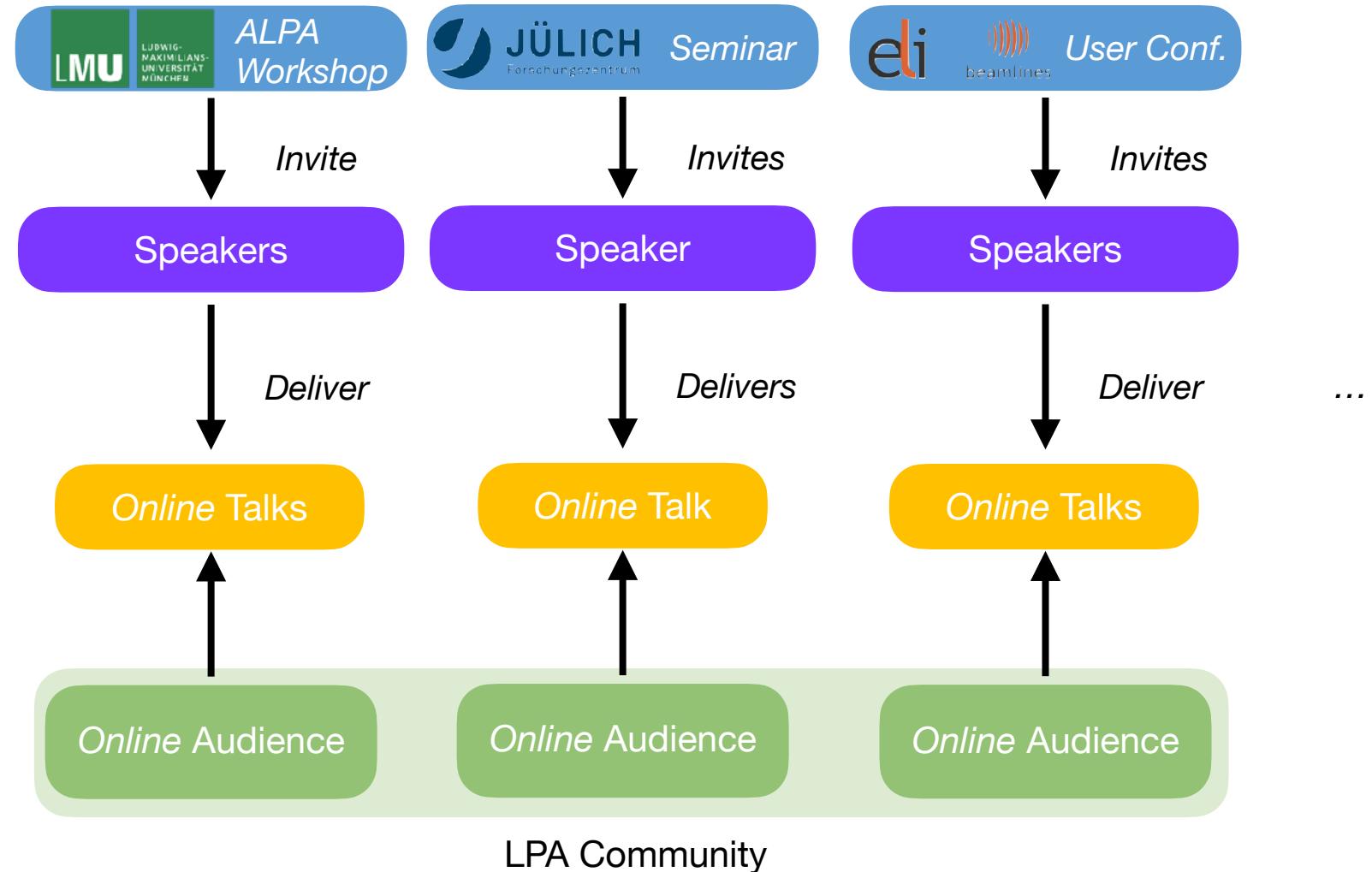


Since COVID-19

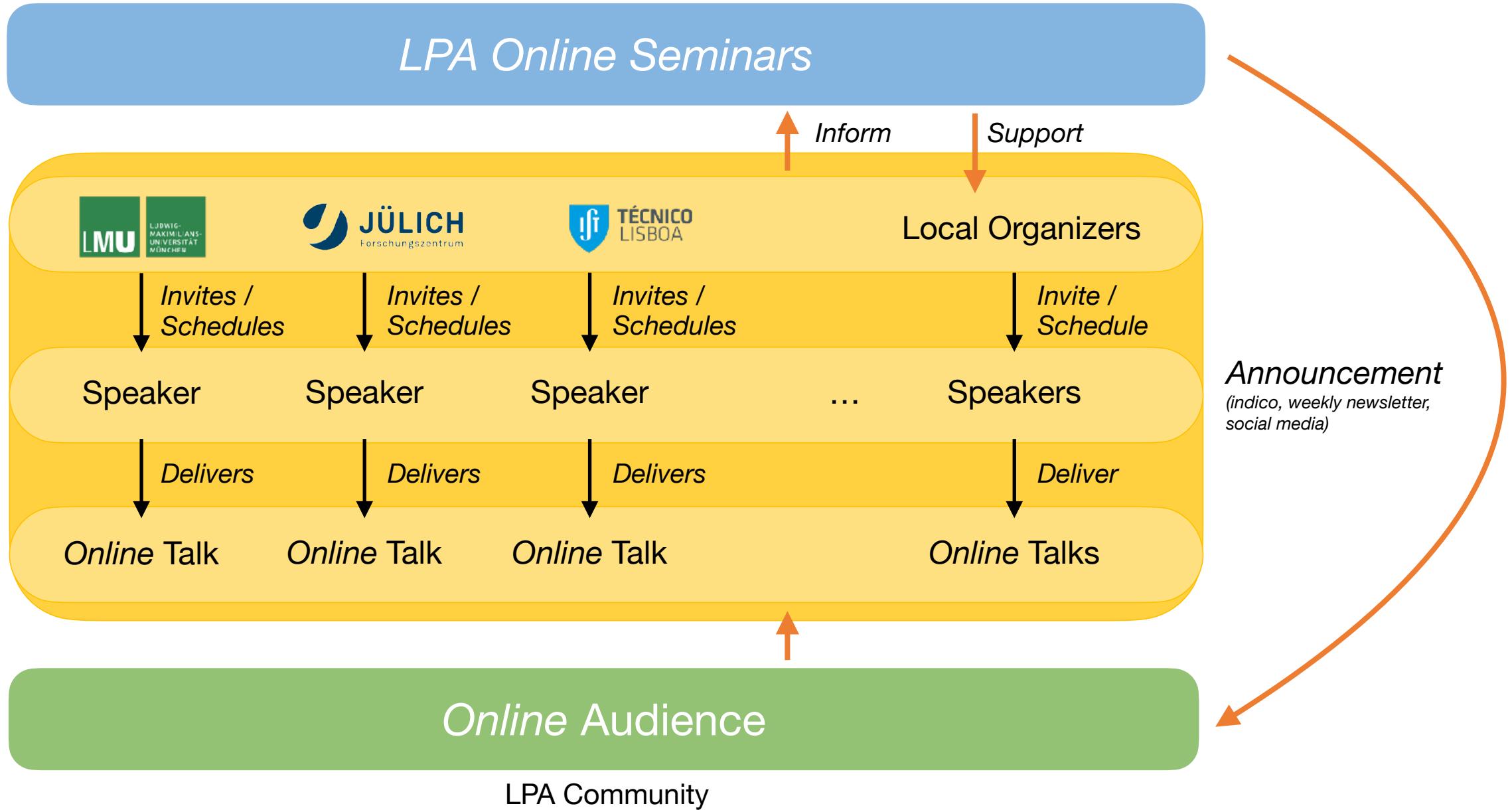
We now see many labs setting up their own online seminars, workshops or meetings in more or less formal way.

These usually only reach lab or university members. But with **geographic restrictions gone**, many of these meetings all have the **entire LPA community as potential audience**.

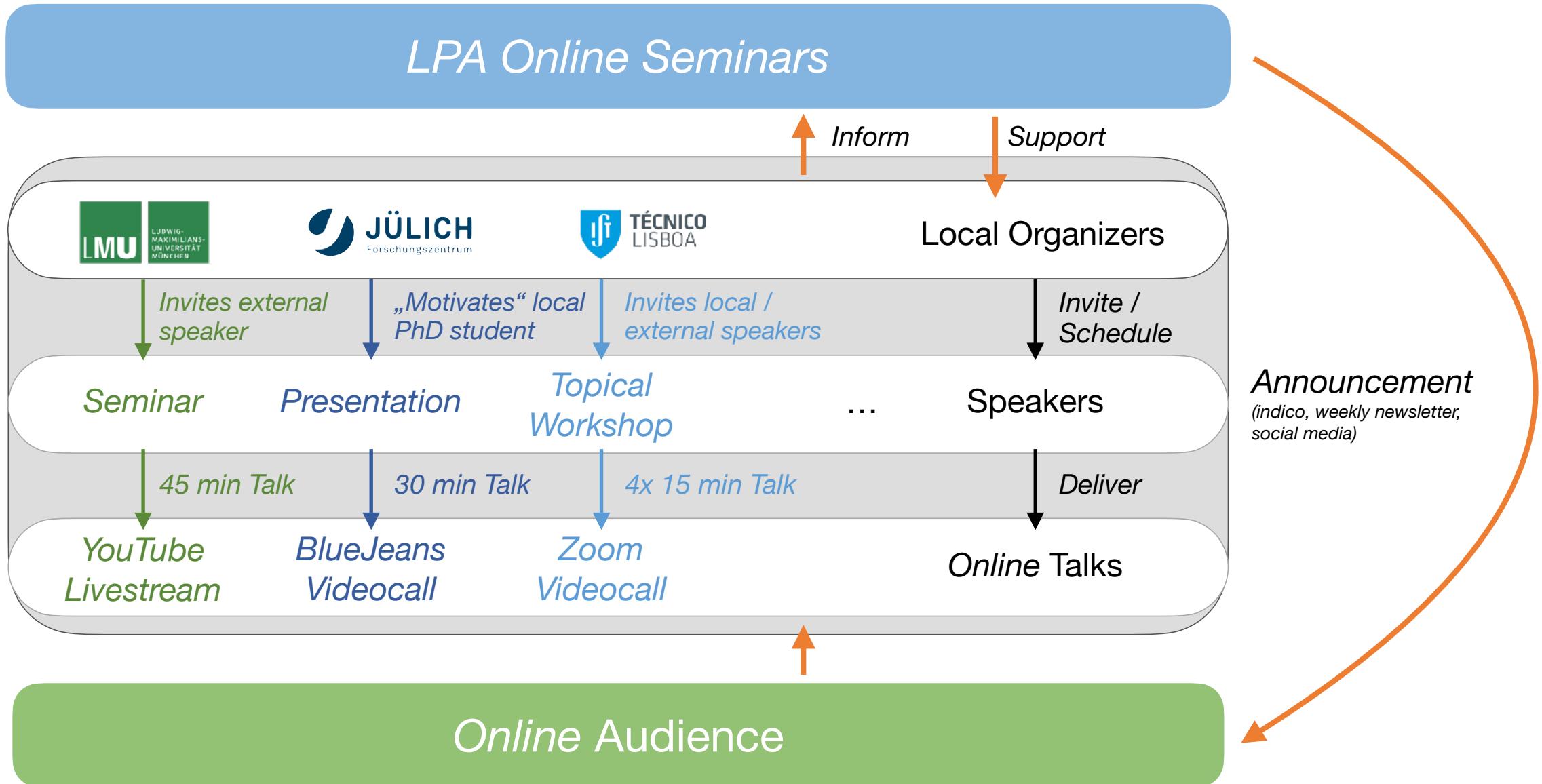
We propose to **establish a joint platform from and for the community** to share online events related to LPA physics and to create dedicated online content.



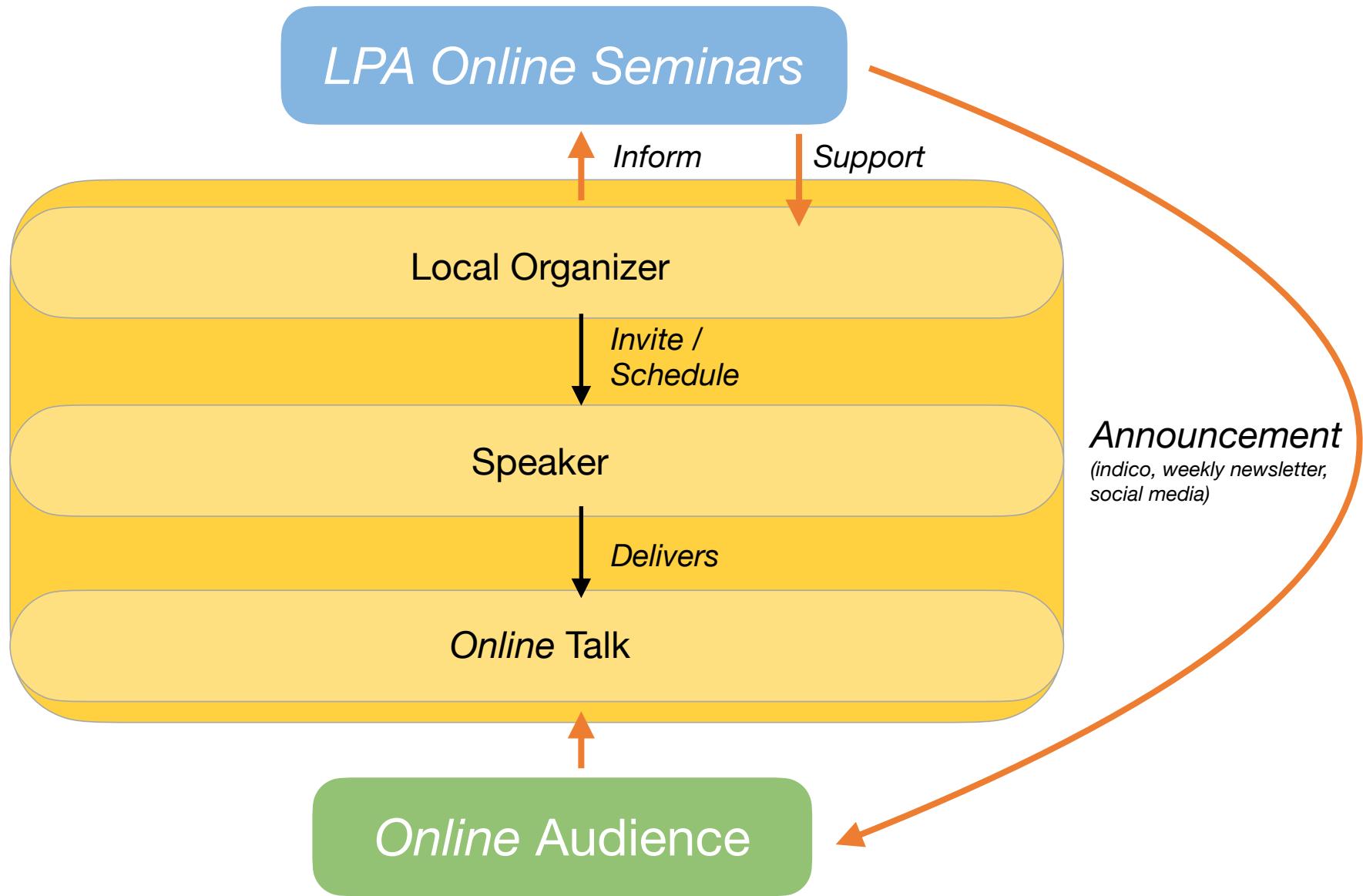
LPA Seminars



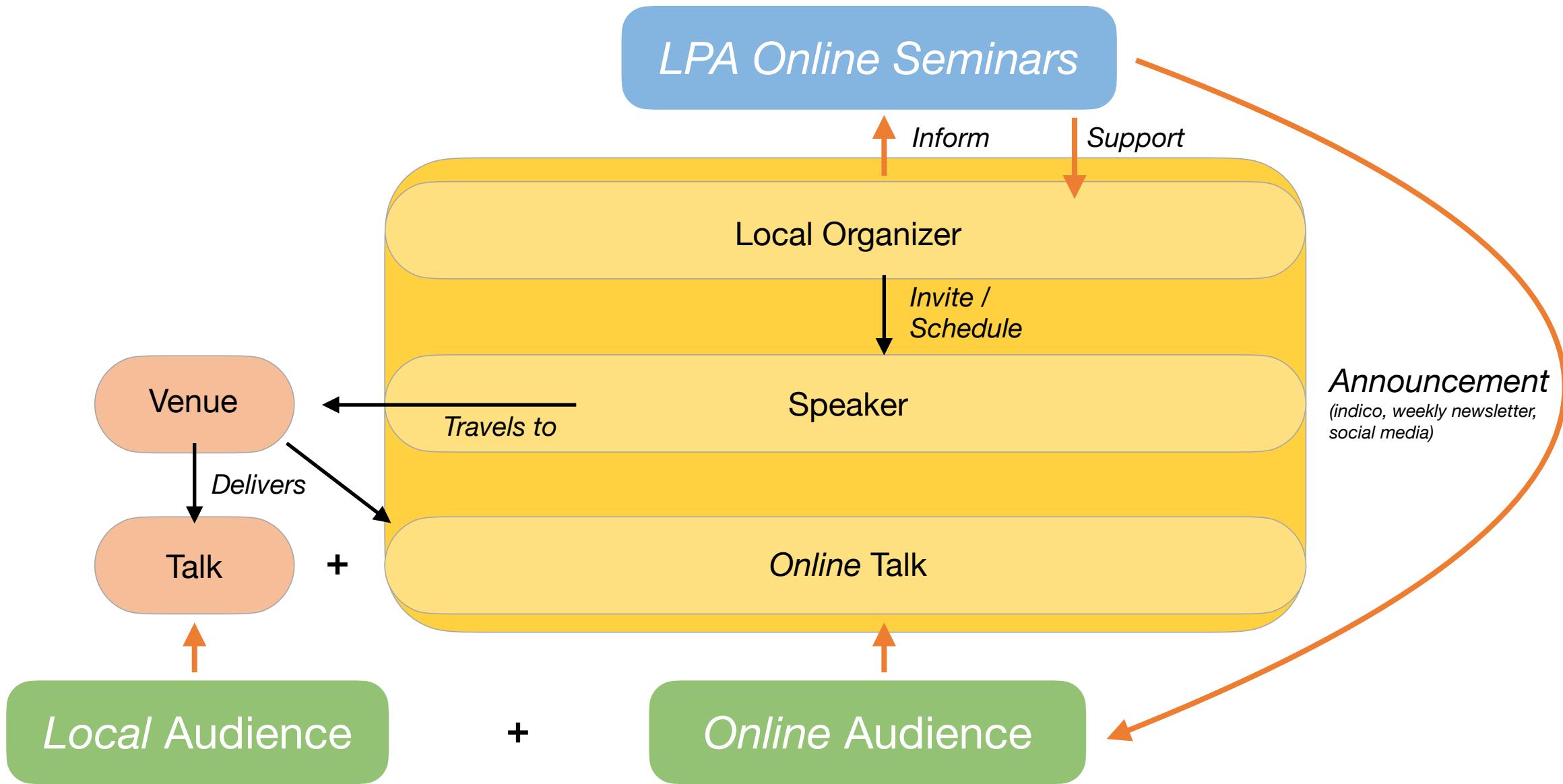
LPA Seminars | A flexible format



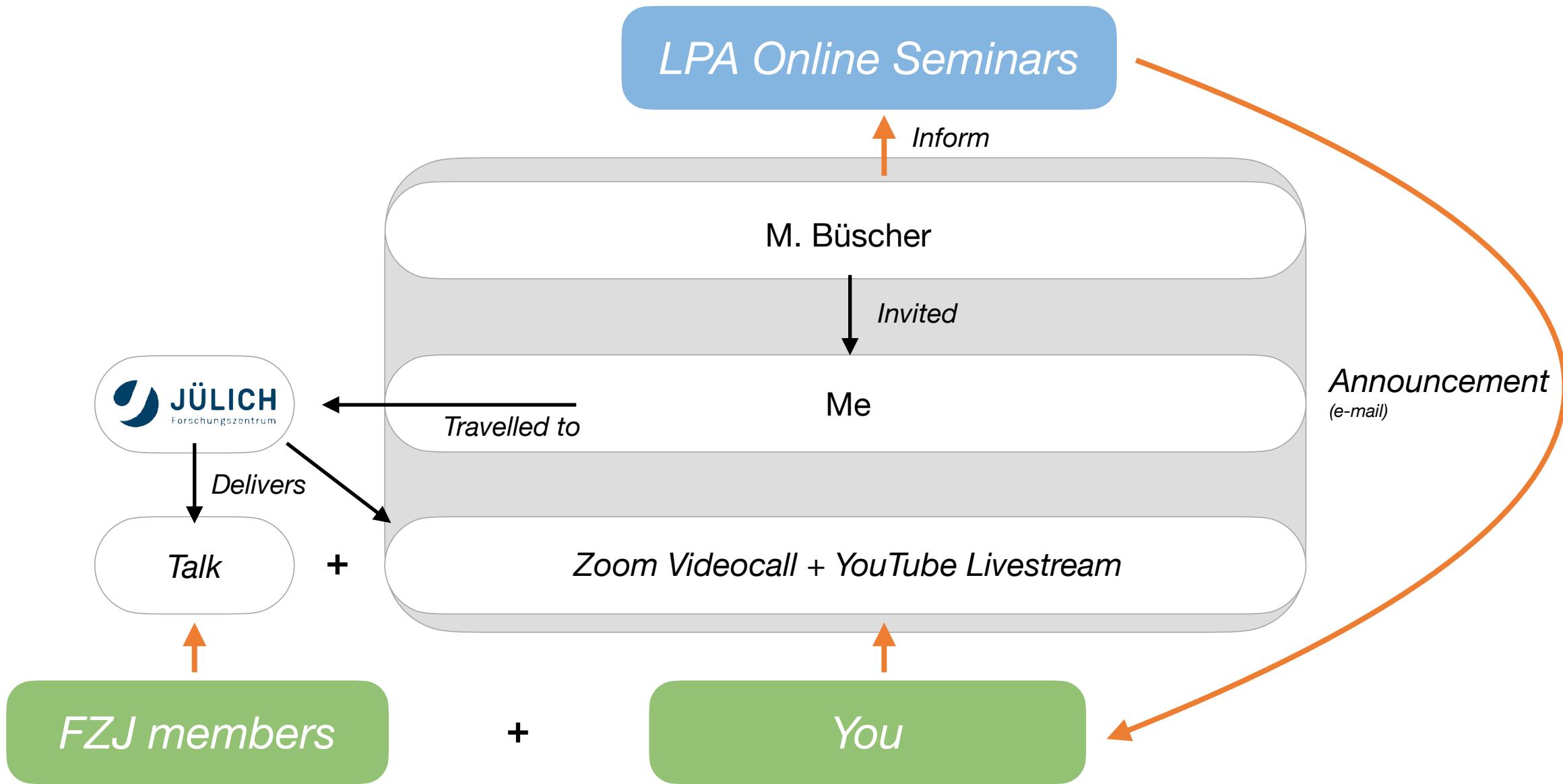
LPA Seminars | In Theory



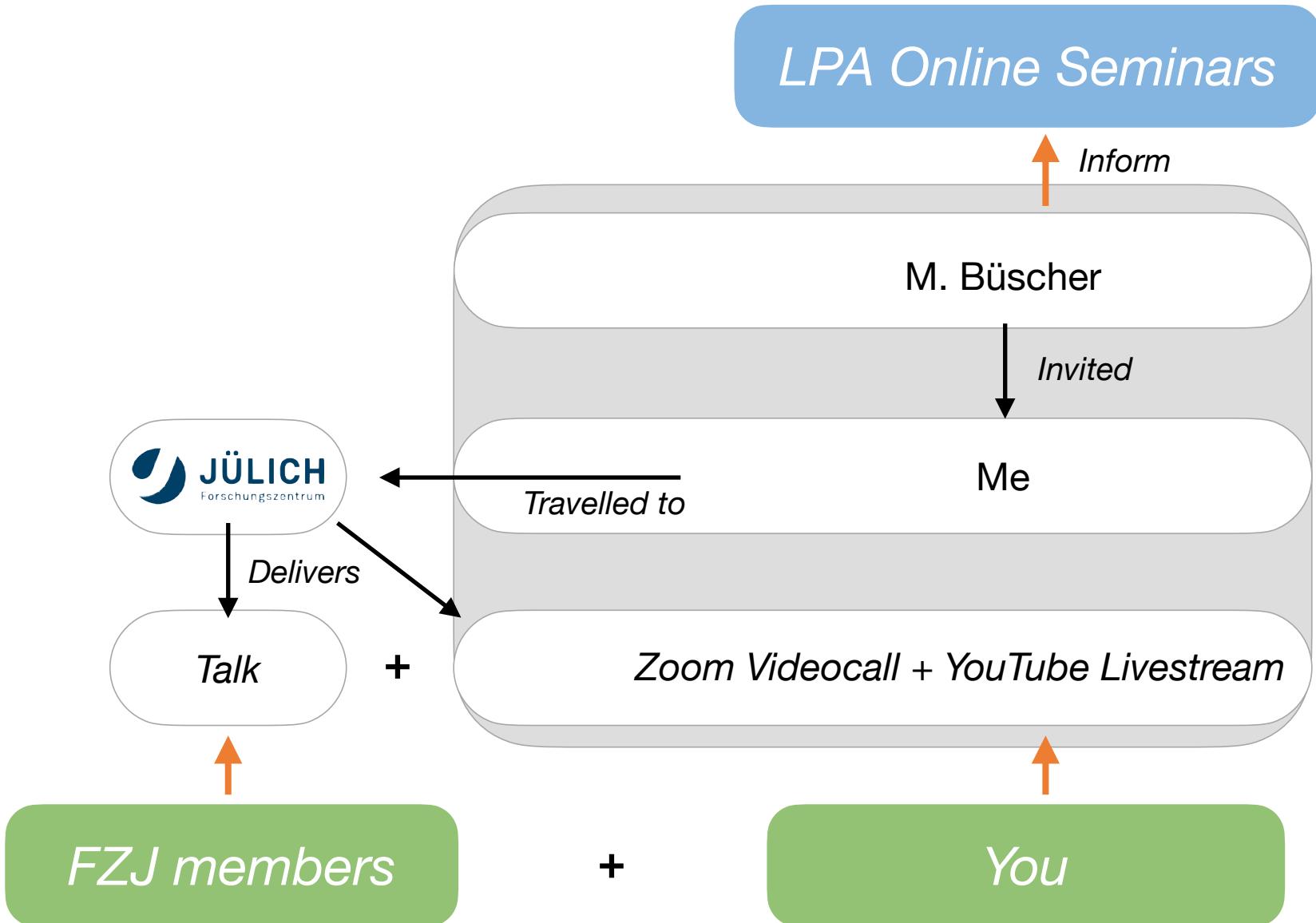
LPA Seminars | The Hybrid



LPA Seminars | The Hybrid



LPA Seminars | The Hybrid



Advantages:

- More natural speaking (*standing, audience in front*)
- Adequate even beyond **Corona pandemic** (*can continue using newsletter, webpage, etc. as a community*)

Practical Implementation



2

Step 1

Planning & Scheduling



You are welcome to share any events related to the **physics of lasers, plasmas and accelerators.**

This explicitly includes any talk on

- **High-power laser** development and characterization
- Theory or experiments about **plasma acceleration** (LWFA, PWFA, DLA, Laser-ion acceleration, etc.)
- **Secondary sources** (positrons, THz, X-ray, etc.)
- Experiment **diagnostics** (laser diagnostics, beam diagnostics, etc.)
- **Applications** of these sources

Furthermore, you are welcome to share talks from **related fields of reasonable interest to the LPA community.**

Rule of thumb: Would you submit the abstract of the talk to LPAW or AAC? 🤘

These are just recommendations and you are free to do what you want. But if your talk too „exotic“ and has little connection to LPA, maybe not many people show up.

Step 1

Planning & Scheduling



Once you have identified a suitable topic and speaker (internal or external), you have to **find a time and date for the talk**.

For this you go on our GoogleDoc and reserve a slot.

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Comments	Partners
September 28 - Oktober 2	Kick-Off Meeting						LMU
				Start			FZJ
Oktober 5 - Oktober 9					Paul Gibon		WIS
Oktober 12 - Oktober 16						Stefan Karsch	HZDR
Oktober 19 - Oktober 23							IST
Oktober 26 - Oktober 30						Matt Streeter	Oxford
November 2 - November 6							HHU
November 9 - November 13			Xiaofei Shen			Francois Sylla	LOA
November 16 - November 20							Jena
November 23 - November 27			Anna Hützen			Peter Norreys	GSI
November 30 - Dezember 4						Kim Ta Phuoc	Belfast
Dezember 7 - Dezember 11		Ke Jiang					Salamanca
Dezember 14 - Dezember 18					tba		Strathclyde
Dezember 21 - Dezember 25				Christmas Break			
Dezember 28 - Januar 1							
Januar 4 - Januar 8						Claus Schneider	
Januar 11 - Januar 15						tba	
Januar 18 - Januar 22					Andreas Seidel		
Januar 25 - Januar 29						tba	

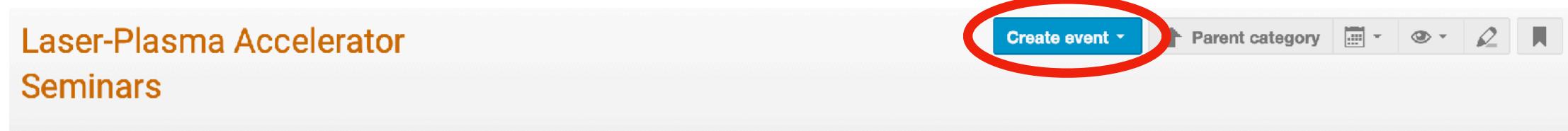
24 weeks from 10/20 - 03/21 (X-mas excluded). Currently 15 confirmed partners, i.e. 30+ talks: Average of 1-2 per week.

We aim for a rather uniform distribution of talks, so please try to avoid conflicting times. At the moment the table allows to reserve either morning (top row) or afternoon (bottom row). We recommend to hold seminars between 11:00 - 16:00 (UCT+1), but other time slots might be preferable e.g. for speakers from Asia or the US. Regular talks with fixed time may help to attract more audience.

Step 1

Planning & Scheduling

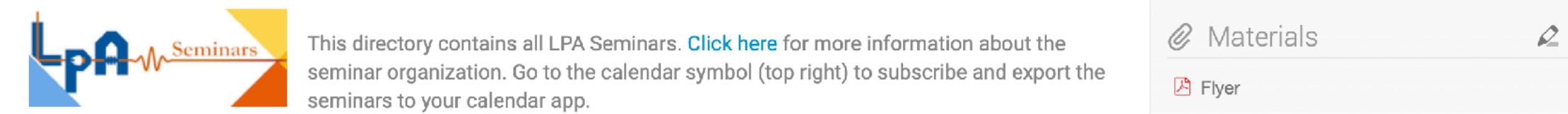
1. Go to indico.lpa-seminars.com



Laser-Plasma Accelerator Seminars

Create event

This directory contains all LPA Seminars. [Click here](#) for more information about the seminar organization. Go to the calendar symbol (top right) to subscribe and export the seminars to your calendar app.

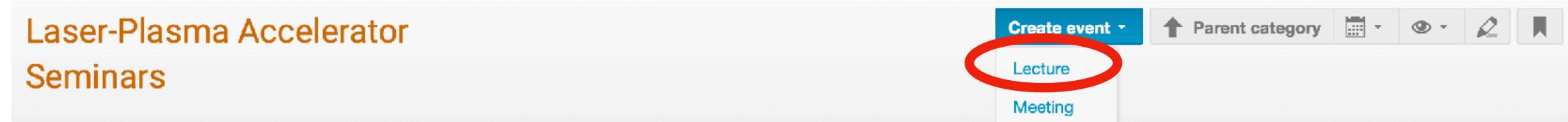


Create event

- Lecture**
- Meeting
- Conference

Materials

Flyer



Create event

- Lecture**
- Meeting
- Conference

Materials

Flyer

2. Click on „Create Event“

3. Select „Lecture“

Step 1

Planning & Scheduling

When the date is fixed and confirmed, you can move to the next step, i.e. **publish the event on indico**.

The screenshot shows the 'Create new lecture' form in indico. The 'Category' is set to 'Laser-Plasma Acceleration'. The 'Event title' is '[Name of Seminar Series] Title of Talk'. The 'Dates' are set for 30/06/2020 at 09:00 for 120 minutes. The 'Timezone' is 'Europe/Berlin'. The 'Location' is set to 'Venue' and 'Room'. The 'Speakers' section shows 'There are no chairpersons' with a 'Search' button (circled in red) and an 'Enter manually' button. The 'Protection mode' is set to 'Inheriting', and a green box indicates the event is 'Public' and will be publicly accessible since the category 'Laser-Plasma Acceleration' is not protected. At the bottom are 'Create event' and 'Cancel' buttons.

1. Please use the following format for the **event title**: „[Name of Seminar Series] Title of Talk“, e.g. „[CALA Seminar] Laser-wakefield Acceleration with ATLAS“ or „[JuSPARC Seminar] Towards kHz laser-plasma acceleration“
2. Add the date and time zone.
3. If the speaker is registered on LMU's indico page, just search for their name. Otherwise chose „enter manually“.
4. If you want the event to be visible to anybody, chose „Public“ or „inheriting“. If you choose protected, only registered LMU indico users can see the event description. We recommend „inheriting“, as you can set protection on any material later.

Step 1

Planning & Scheduling

When the date is fixed and confirmed, you can move to the next step, i.e. **publish the event on indico**.

Create new lecture

Category * Laser Plasma Acceleration

Event title *

Dates * 30/06/2020 09:00 120 ⓘ Add occurrence

Timezone * Europe/Berlin

Location Venue Room

Speakers There are no chairpersons

Protection mode Public Inheriting Protected

This event will be publicly accessible since the category Laser-Plasma Acceleration is not protected.

Advanced

Description

Create event Cancel

5. Click on Advanced to add an abstract for the event.

6. Once you are done, click on „Create event“.

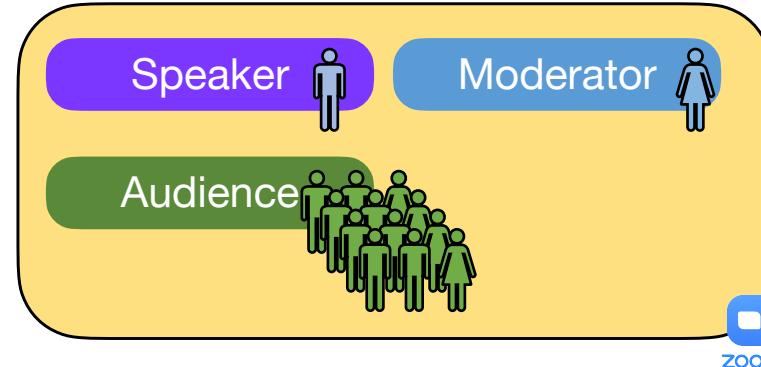
Step 2

Setting up an online event



With the event created on indico, you can set up a meeting.

Videocall



Zoom, Microsoft Teams, BlueJeans (Verizon), Google Meet, Jitsi Meet, DFN Conf, etc.

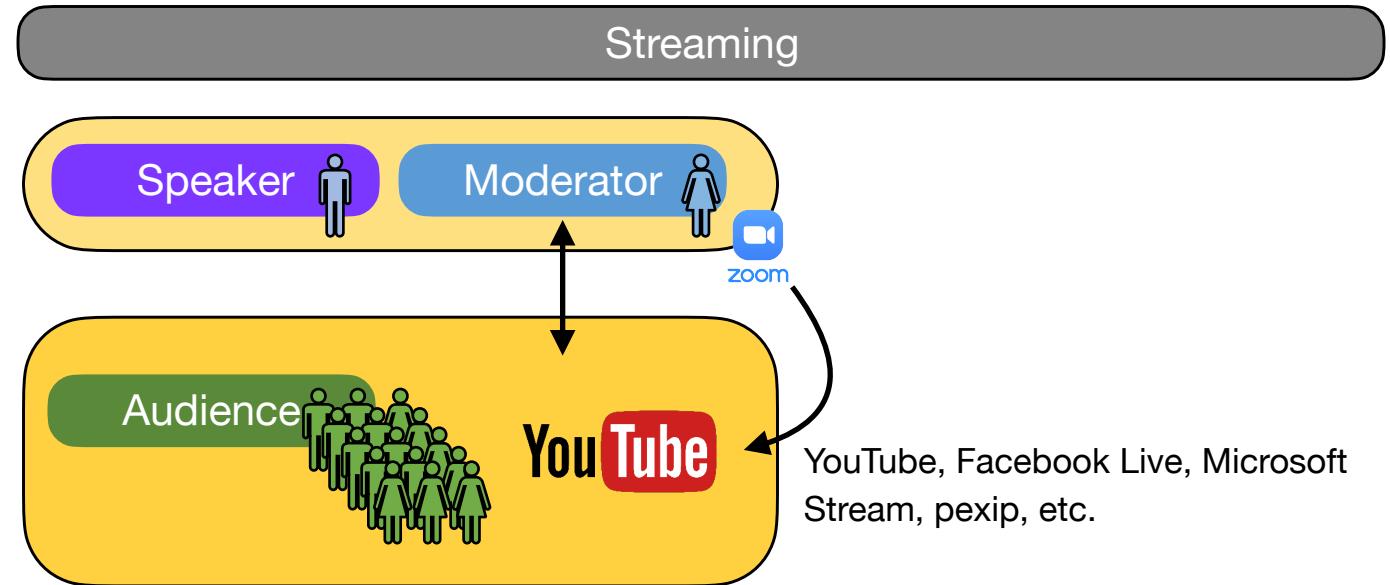
- Easy to set up (*everyone has done it by now*)
- Audience can directly interact with speaker
- Only live. Need to check data protection before recording an event (might require permission from *all* participants). **This is your responsibility as a local organizer.**

Step 2

Setting up an online event



With the event created on indico, you can set up a meeting.



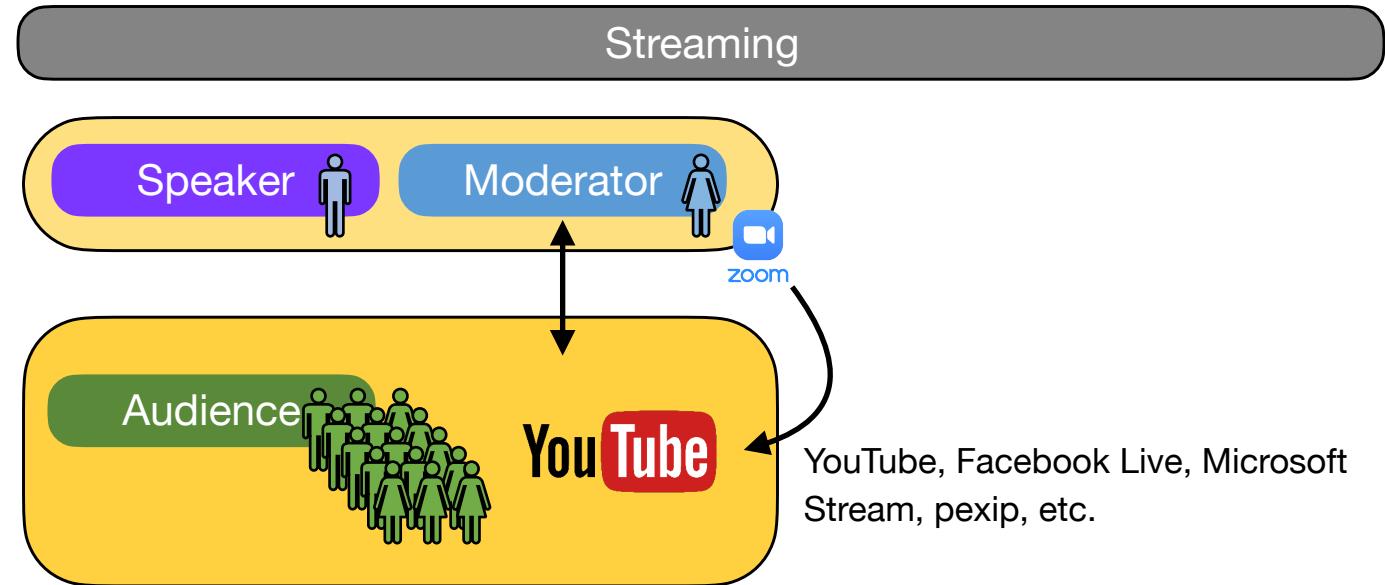
- Speaker and Moderator alone in virtual meeting room. **Recording only requires permission of these two.**
- Audience sees the event with short delay (15-30 s) via streaming. Can ask questions via chat, moderator relays them to speaker.
- If you join late, you can catch up. If you miss the live talk, you can still watch it later.
- YouTube directly implemented in Zoom. **You can use our LPA Seminars Channel** (youtube.ipa-seminars.com).

Step 2

Setting up an online event



With the event created on indico, you can set up a meeting.



Public video: Everybody can see it and search for it. Appears in channel history.

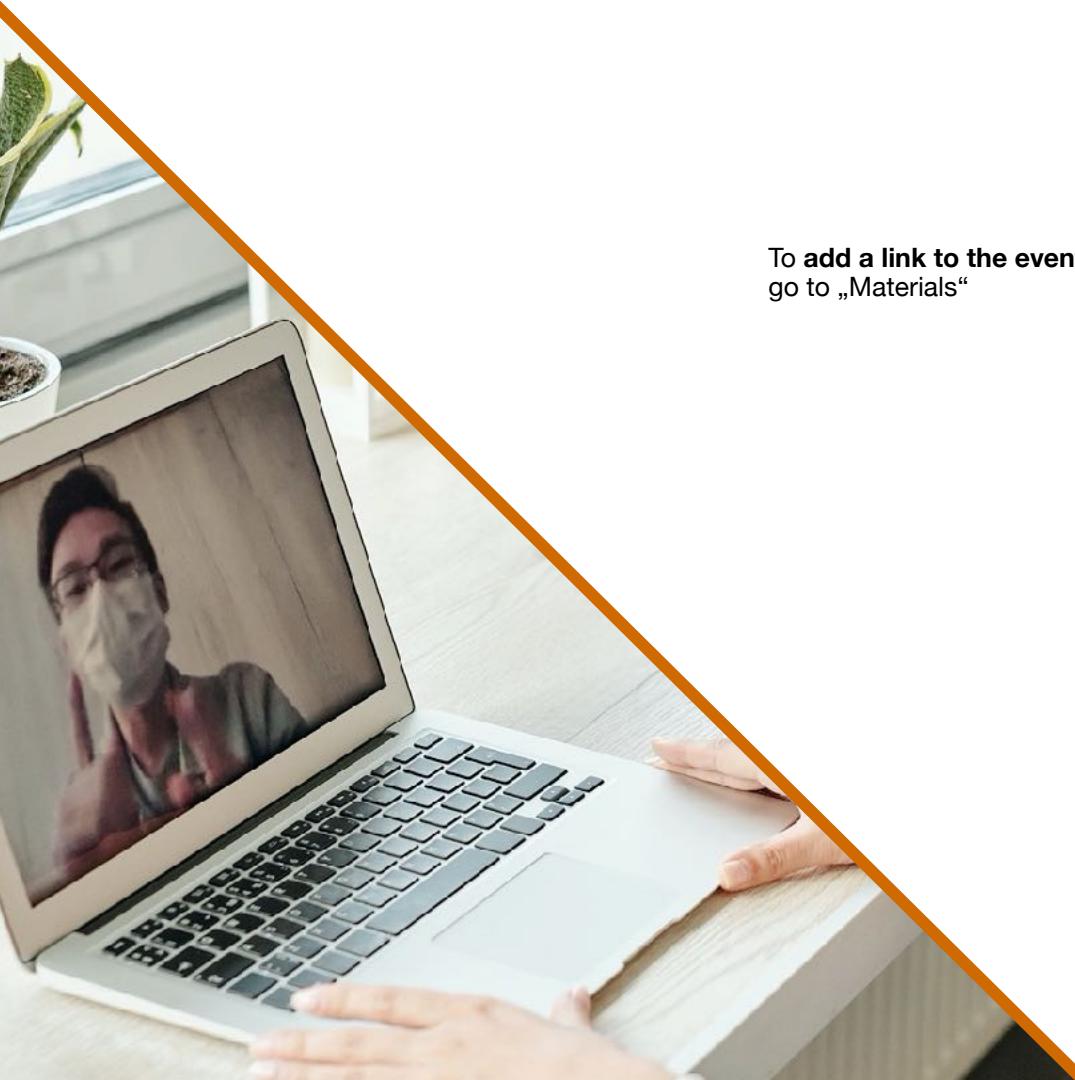
Unlisted video: Only people with the link (i.e. those registered on indico, newsletter) can see the video. **Recommended** (*Balance between accessibility and privacy*)

Video can remain online for 1 week, indefinitely, ...

We will offer a **separate tutorial event** for those interested in using YouTube Streaming.

Step 3

Sharing the meeting link



To add a link to the event,
go to „Materials“

A screenshot of the Indico event settings interface. The left sidebar shows a list of options: Settings, Protection, Organization (with Materials circled in red), Participants, Reminders, Surveys, Reports (with Logs), Customization (with Layout and Posters/Badges), Advanced options (with Features, Offline Copy, and Roles Setup). At the top, there is a "Switch to display view" button.

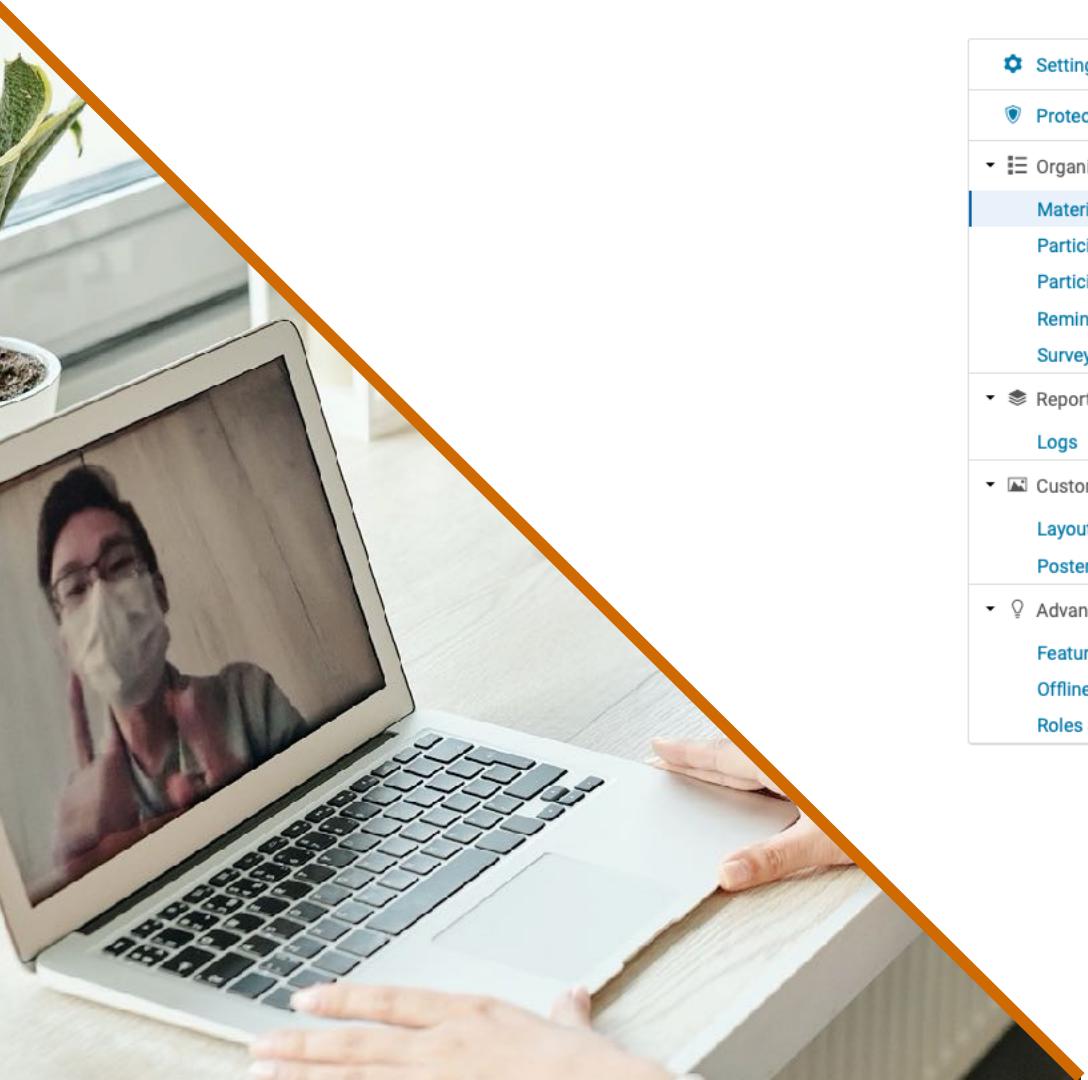
Regardless whether you use Zoom, Teams or Youtube, you will get a **meeting or streaming URL** which you share via **indico**.

A screenshot of the Indico event settings page for an event titled "Test" on "30 Jun". The page shows the following details:

Setting	Value	Action
Title	Test	
Description	None	
Short URL	None	
Date	30 June 2020	
Time	09:00 - 11:00	
Timezone	Europe/Berlin	
Room	None	
Venue	None	
Address	None	
Speakers	None	
Organizer	None	
Contact title	Contact	
Email	None	
Phone	None	
Keywords	None	
Label	None	

Step 3

Sharing the meeting link



Regardless whether you use Zoom, Teams or Youtube, you will get a **meeting or streaming URL which you share via indico**.

Materials

Add materials to the event.
You can attach files or links using the buttons on the right.

Upload files  Add link 

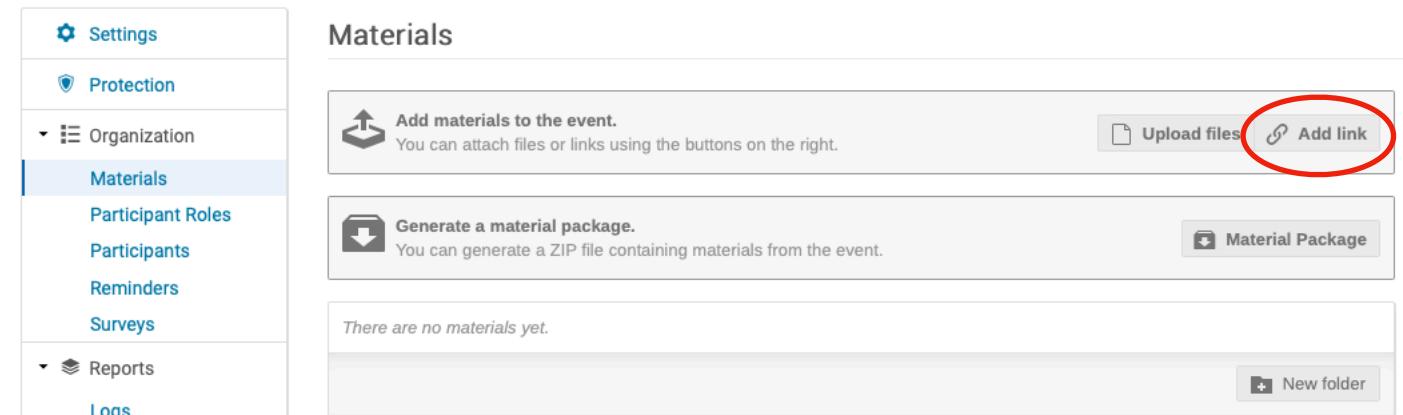
Generate a material package.
You can generate a ZIP file containing materials from the event.

Material Package

There are no materials yet.

New folder

You can also use this to upload related material such as slides etc. after the seminar. Just click on „Upload files“.



Step 3

Sharing the meeting link



Regardless whether you use Zoom, Teams or Youtube, you will get a **meeting or streaming URL** which you share via **indico**.

Add link

URL *****

Title *****

Folder Adding materials to folders allow grouping and easier permission management.

Protected **Public** This object is publicly accessible since Test (Event) is not protected.

Access control list The list of users and groups allowed to access the material

Submit **Cancel**

1. Insert the **link to access the event**, e.g.

2. **Name the Link** appropriately

3. Select if the link is **protected or public**. If you select public, anyone who can see the indico event can also see the link. If you **select protected** only indico users can view it. We recommend using the protected

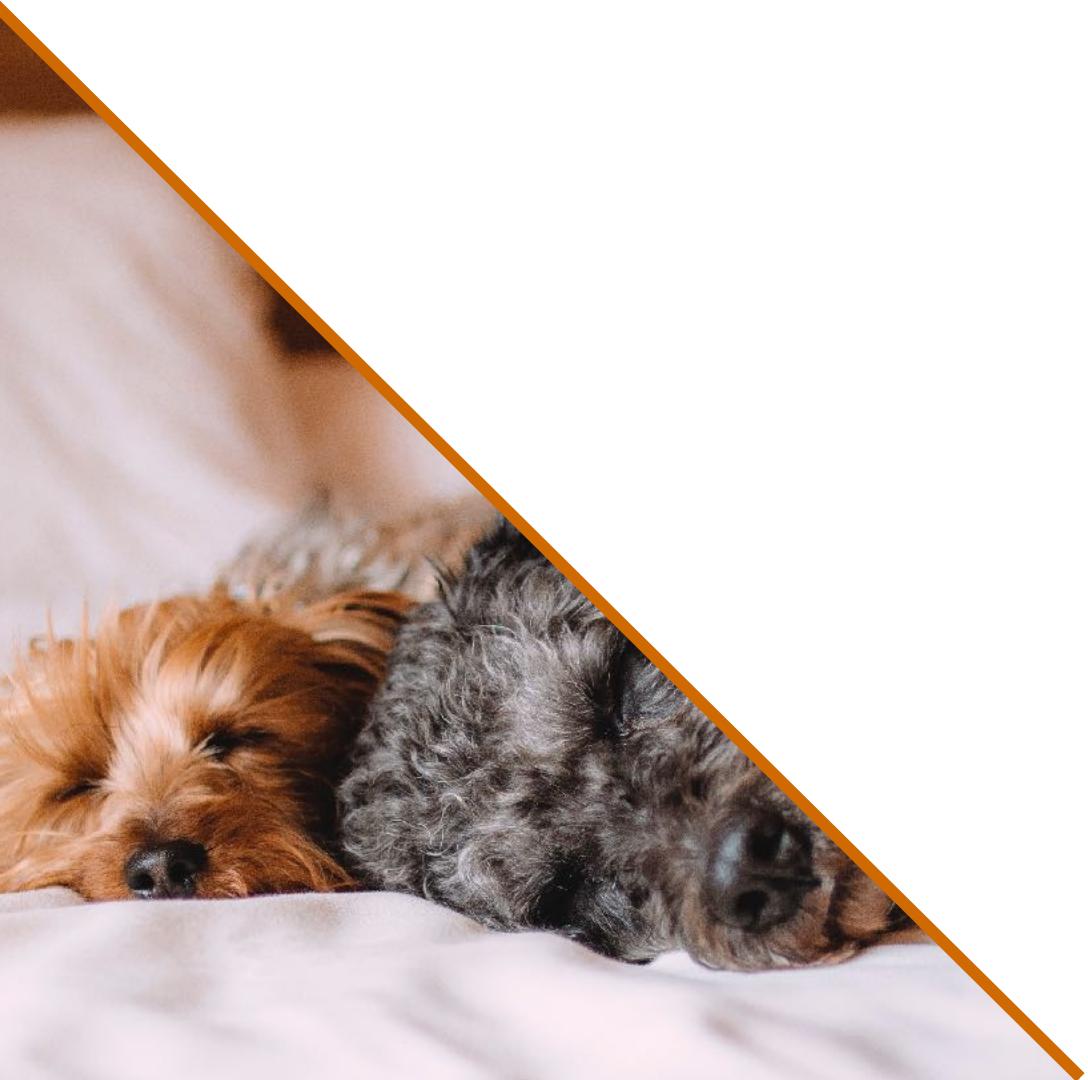
Protected **Protected** This object is only accessible by the users specified below and the managers of parent resources.

Access control list The list of users and groups allowed to access the material

Submit **Cancel**

Step 4

Relax. Now it's our turn.



Step 4

Announcement



Indico (indico.ipa-seminars.com)

Following the previous steps your event is listed on indico and registered users can find all info to attend it.

Newsletter (newsletter.ipa-seminars.com)

The week before it **we will send a newsletter** to announce all upcoming events (title, abstract, meeting link?). **FZJ has volunteered to take care of the newsletter** .

Please send me a list of people you would like me to add to the newsletter (researchers, students, etc.). For discussion: Should we announce only to partners, to EU community or to world-wide community?

Social Media (twitter.ipa-seminars.com)

We can also announce events on social media (Twitter, Facebook, etc.). **Volunteers to help with this are welcome** .

Step 5

Preparing for the talk

- On the day of the talk, **check that everything works before the talk**. Make sure the presenter's computer has a reliable internet connection.
- If possible, hold the talk in front of an audience, not in front of the computer.
- We suggest to use screen sharing to show slides.
- For good audio quality, consider using external microphones (lavalier or condenser microphones). Consumer electronics can do the job.



Step 6

The Talk



The image shows a screenshot of a YouTube video player. The video is titled "Quantum Science Seminar #10 - Anne L'Huillier" and is described as "Atomic photoionization using attosecond pulses". The video is from the "1st General Organization". The speaker, Anne L'Huillier, is shown in a video feed in the top right corner, which is circled in red. The video player interface includes a play button, a progress bar showing 0:39 / 1:05:55, and a zoom control. The video is live, as indicated by the "Live übertragen am 25.06.2020" text. The YouTube interface at the bottom shows 14 likes, 0 dislikes, and sharing options.

Quantum Science Seminar #10 - Anne L'Huillier

1st General Organization

Atomic photoionization using attosecond pulses

Anne L'Huillier
Lund University
Sweden

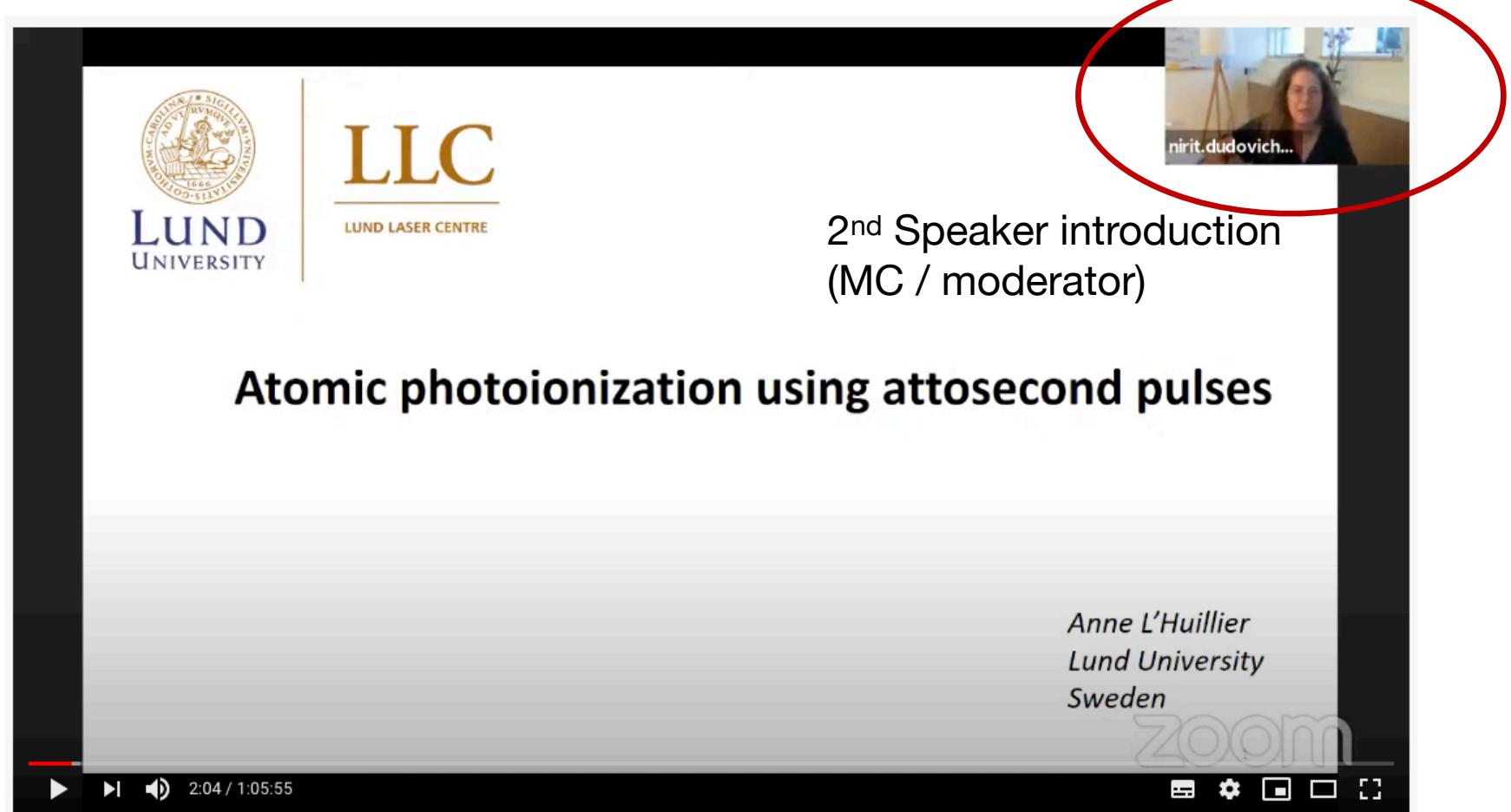
0:39 / 1:05:55

14 0 TEILEN SPEICHERN ...

Step 6

The Talk

Short introduction
of the speaker



2nd Speaker introduction
(MC / moderator)

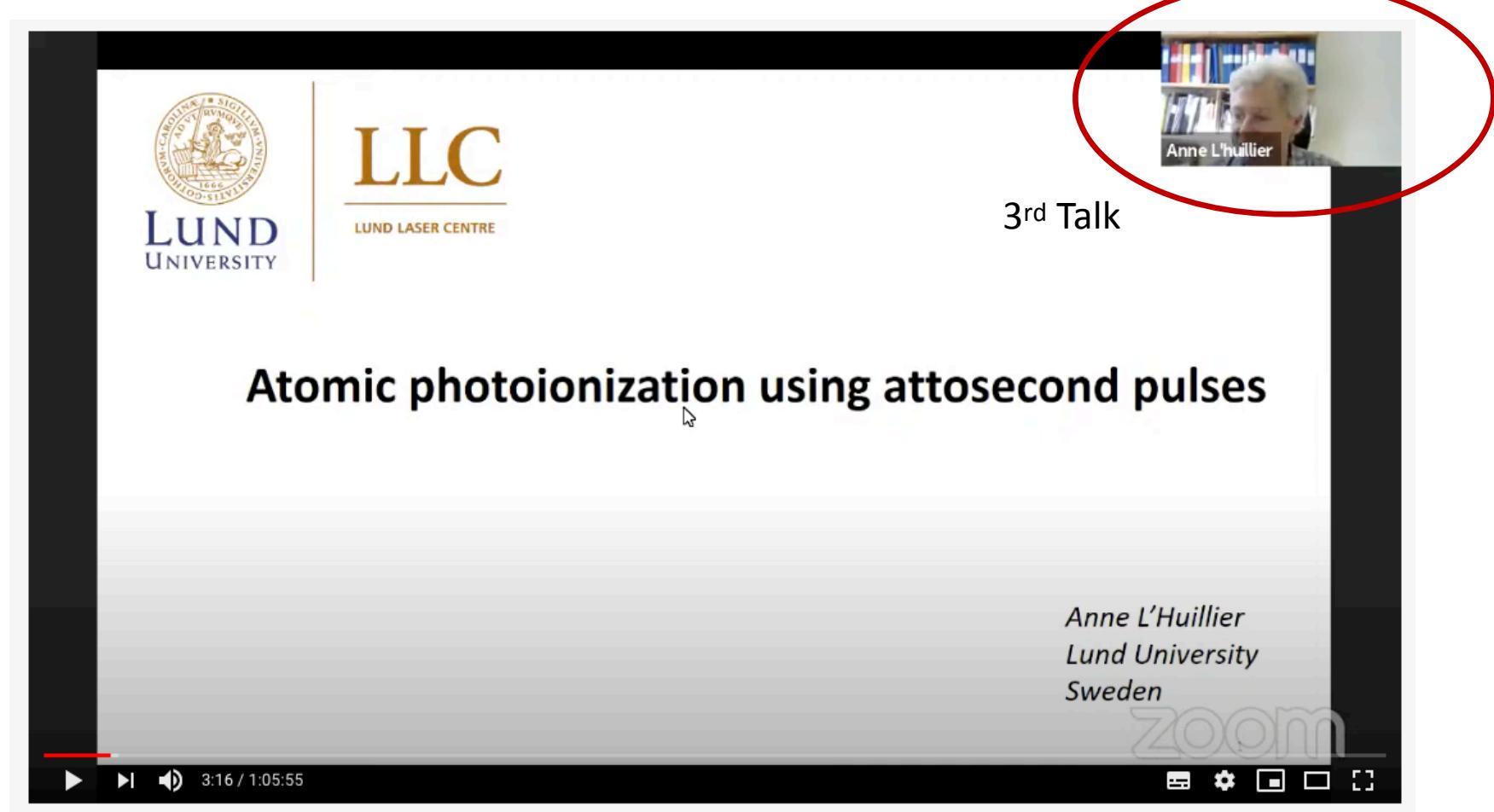
Atomic photoionization using attosecond pulses

*Anne L'Huillier
Lund University
Sweden*

Step 6

The Talk

Talk, duration depends on event type



Step 6

The Talk

Challenges

Next 1-2 years

Ultracold Atoms
~1000 atoms

Tweezer Arrays
~100 atoms

Ion Traps
~50 atoms

larger

813 nm
— 1 cm

tuneout 1S_0 (3P_0)
689 nm (633 nm)

tuneout 1S_0 (3P_0)
689 nm (633 nm)

High power and robust cavity lattices

— 20 μ m

— 1 μ m

Controlability

Big advantage: all atoms (molecules) are the same! (built by nature)

55 165 11 μ m

zoom **LMU**

1:03:21 / 1:05:40

4th Q&A

Wiedergabe des Top Chats ▾

William Phillips Most methods for making a spin system half up and half down will produce a distribution of up vs. down. Could you say more about that.

m kn Could you tell us how the temperature is measured?

ilian despard You talk about running the experiment tens of thousands of times, however the cycle time for these experiment can be quite high. Could you discuss any improvements you have implemented to speed it up?

Tobias Grass What happens when there are two holes on neighboring sites? Does it still squeeze to an AFM when removing the holes?

Luis A. Peña Ardila when you go from the polaron to the crossover regime, what would be the effect of the polaron-polaron interaction (if any)?

Qi-Yu Liang Can you say more about imaging different spins/planes in one experimental run? Does the imaging mutually affect each other? How long between the images?

Rakesh Arul how analogous is the polaron to strange metal phase in superconductors? is there a way to measure mobility/resistance of polaron v.s. temperature showing linear behaviour (as in the strange metal)?

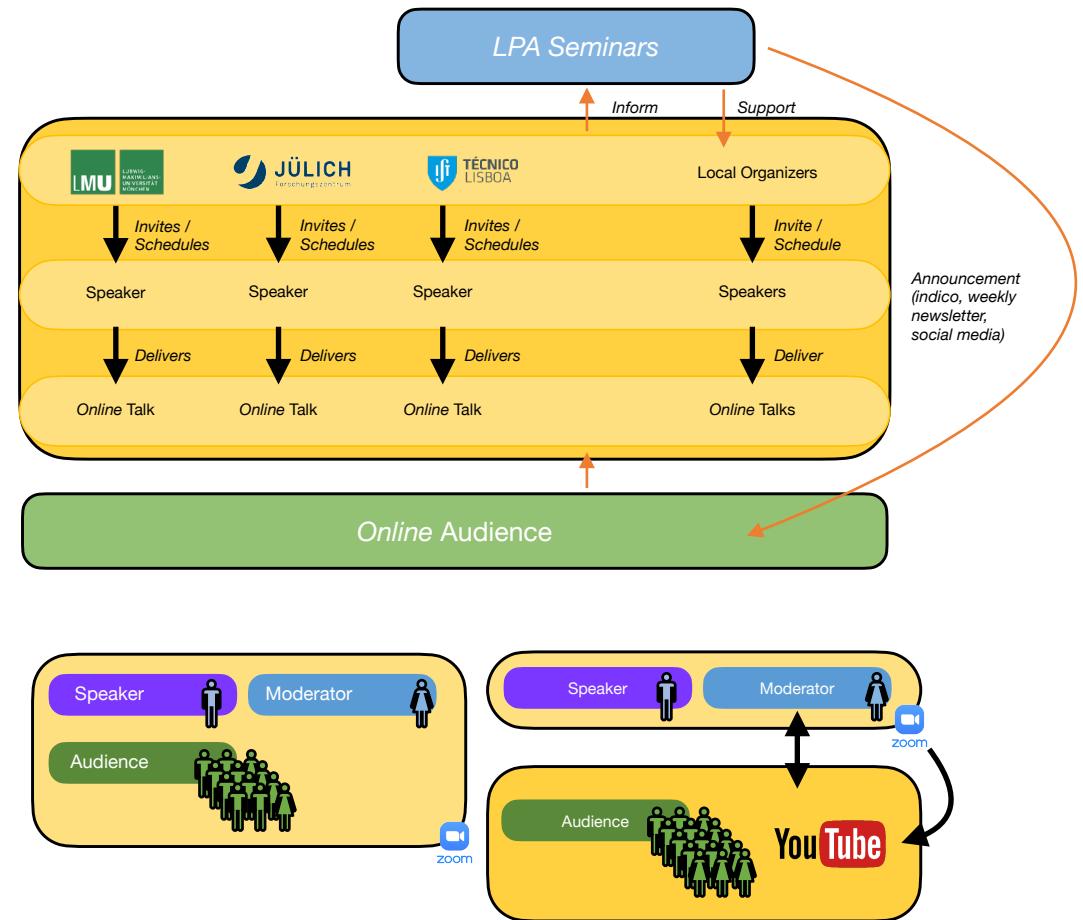
m kn Do you see the spatial pattern of stripes or charge density waves in the cross-over regime?

CHATWIEDERGABE AUSBLENDEN

Summary

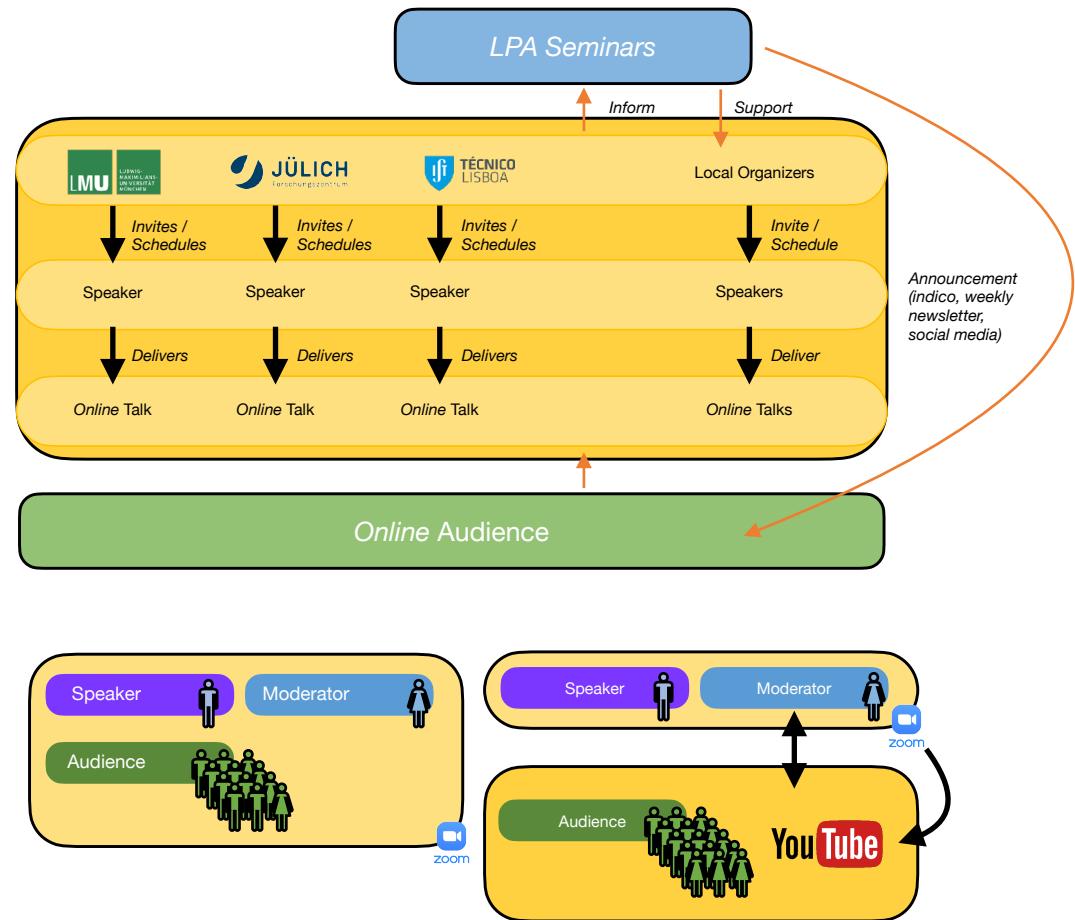
Focus on flexibility, simplicity and shared organization

- **Flexible format** (Seminar, Talk, Lecture, etc.)
- **Flexible medium** (Zoom, Teams, YouTube, etc.)
- **Flexible contribution** (as *much as you want, when you want*)
- Uses indico and e-mail newsletter as main announcement media
- LPA Organizers provides support and recommendations
- Joint format provides widest possible audience
- No main seminar, but rather a „menu“ to pick from
- If accepted by the community, it can be used and extended beyond pandemic (lectures, tutorials, topical weeks, etc.)



What's next?

- Is **everyone okay with this plan?**
- All partners should **schedule** at least **two events** in October to March period.
- Would be good to have **one fixed contact person** per partner to sort out technical details and day-to-day business (maybe a postdoc?)
- Need to set up **E-Mail list for newsletter**. Only partners (if so, how to enforce?) or whole community (if so, does anybody have a good e-mail list?)
- **Organization team is rather small** (and exclusively German) at the moment. Should we extend the core team?
- In any case: Meeting in December/January to evaluate strategy.



Discussion



Questions?

Comments?

Suggestions?

3

